

CHINA BUILDS FOR DEMOCRACY

[A Story of Cooperative Industry]

By
NYM WALES

With a Foreword by
JAWAHARLAL NEHRU

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NOTE

All money mentioned in this book is in Chinese currency unless otherwise noted. Since 1938 exchange has ranged from five to 25 to one for the United States dollar, exchange being higher in the interior than on the coast. In estimating the value of US \$1.00 in general terms, I have used an average of ten to one, unless otherwise indicated. Costs are going up rapidly in the interior due to inflation, exchange, wartime prices, etc., but in any case one American dollar has an exchange value of at least ten Chinese dollars. During July, 1940, exchange had recovered to fifteen to one. It varies widely from month to month. It must be pointed out, however, that one dollar Chinese in interior China is still worth as much or more than one American dollar in the United States in terms of internal purchasing power and production value. Thus ordinary monthly wages in industry range from Ch. \$10 to \$30, and food for one worker averages from \$10 to \$15. The Industrial Cooperatives sell a woollen blanket for from Ch. \$8 to \$10—or less than seventy cents U.S. Soldier's uniforms are sold for from Ch. \$6 to \$10. Medicated cotton is sold for Ch. \$1.20 per pound. The total *volume* of production of the Industrial Cooperatives is greater than the financial figures indicate, while this Ch. \$7,000,000 monthly production as of May, 1940, has about the same value in China as the same figure would have in the United States.

Several Chinese terms occur infrequently in the book:

Li—approximately 1/3rd of an English mile.

Catty (or *chin*)—a measure of weight corresponding to a pound.

Tan (or *picul*)—a variable measure of weight usually equivalent to 133.33 English pounds.

Hsien—a county in the provinces.

FOREWORD

In the late summer of 1938, when the fate of Czecho-slovakia hung in the balance, I met at the house of an English friend in London, some people who had recently come from China. They were both Chinese and English, and they told us of the early beginnings of a village cooperative movement to produce goods which China lacked so much and to prevent an influx of Japanese commodities. It was a brave idea, but it was still in its infancy and one could hardly imagine then that it would grow and grow till it made a vital difference to events in China. I was interested in it.

Later, when I was back in India, small pamphlets and folders came to me from time to time from Honkong and Chungking telling me of the rapid growth of the Chinese Industrial Cooperatives. My interest in them grew, not only because of China, but because of our own village industry movement in India. When I went to China in August 1939, I was eager to find out more about the C. I. C. and to visit, if possible, some of their centres of activity. Some more information I gathered in Chungking, but my visit suddenly cut short by the War in Europe and I hurried back home.

Pamphlets and sometimes articles, chiefly in American magazines, gave further information and as I read these my excitement grew. I referred to 'Indusco' in my speeches and in articles in the newspapers, and many letters came to me asking for further details. I suggested that some of our village industry experts should go to China to study the Chinese cooperatives on the spot, and some C. I. C. experts should be invited to pay a visit to India. But war developments brought new complications in India and all our attention was diverted to these.

I went to prison. In the summer of 1940 a copy of Edgar Snow's new book 'Scorched Earth' (named in its original edition in America 'The Battle for Asia') reached me in Dehra Dun Jail. I read it with intense interest but no part of it held me so much as the chapters dealing with the Chinese Industrial Cooperatives.

Two or three months went by and then a packet brought me a gift from Madame Sun Yat Sen from Hongkong. To be remembered by her in prison was joy enough for me, but when

I opened the packet I felt an additional excitement. It contained Nym Wales's 'China Builds for Democracy'. Here at last, I thought, was the very book I wanted, which would tell me everything about this fascinating experiment which had already achieved so much and which held so much promise for the future.

When I came out of prison in December last I spoke about this book to many friends and every one wanted to borrow it from me. I am not usually ungenerous with my books but I was loathe to part with this particular one because it was a valued gift. But the pressure was too great and it went from hand to hand. Two months ago another copy came to me. This was the American edition of the same book sent by Nym Wales. This also was snatched by others and it has not come back to me yet.

It is obvious that there is a particular demand for this book in India for in many ways we have to face the same problems as in China. One of the problems that India has thought of for many years has been the relation of big industry with village industries. Is there an inherent conflict between them and must one of them survive at the expense of the other? Is there no way of coordinating the two? I am glad therefore that this book is being published in India and I hope it will have many readers. For the experience of China is of inestimable value to us and I am sure we can learn much from it.

I have long held that the industrialization of India is essential in order to increase rapidly our production and our national wealth and thus to raise our standards of living. I do not think that we can solve our poverty problem without industrialization and the growth of big industry. I do not think that any non-industrialized country can be economically independent.

And yet I have worked for the spread and growth of village industries, not merely as a matter of political discipline but because I believed in them. Many of my friends have not appreciated this dual urge of mine, and have charged me with a lack of faith in this or that, and with attempting to reconcile the irreconcilable. They have not convinced me and I still hold that in India we must push both big industry and village industries and coordinate the two. I recognize that this cannot be easily done under the present capitalist system. Change that system then. Indeed it is bound to go under the stress of this war and its after-effects, and give place to a planned economy.

Gandhiji has, I think, done a great service to India by his emphasis on village industry. Before he did this, we were all, or nearly all, thinking in a lop-sided way and ignoring not only the

human aspect of the question, but the peculiar conditions prevailing in India. India, like China, has enormous man-power, vast unemployment and under-employment. It is no good comparing it with the tight little countries of Europe which gradually became industrialized with small and growing populations. Any scheme which involves the wastage of our labour power, or which throws people out of employment is bad. From the purely economic point of view, even apart from the human aspect, it may be more profitable to use more labour power and less specialized machinery. It is better to find employment for large numbers of people at a low income level than to keep most of them unemployed. It is possible also that the total wealth produced by a large number of cottage industries might be greater than that of some factories producing the same kind of goods.

The objective aimed at should be maximum production, equitable distribution, and no unemployment. With India's vast population this cannot be achieved by having big industry only, or cottage industry only. The former will certainly result in much greater production of some commodities but the unemployment problem will remain more or less as it is, and it will be difficult to have equitable distribution. It is also likely that our total production will be far below our potential because of the wastage of labour power. With cottage industries only there will be more equitable distribution but the total production will remain at a low level and hence standards will not rise. In the present state of India of course even wide-spread cottage industry can raise standards considerably above the existing level. Nevertheless they will remain low. There are other factors also which make it almost impossible for any country to depend entirely on cottage industry. No modern nation can exist without certain essential articles which can only be produced by big industry. Not to produce these is to rely on imports from abroad and thus to be subservient to the economy of foreign countries. It means economic bondage and probably also political subjection.

Therefore it seems essential to have both big industries and cottage industries in India and to plan them in such a way as to avoid conflict. Big industry must be encouraged and developed as rapidly as possible, but the type of industry thus encouraged should be chosen with care. It should be heavy and basic industry which is the foundation of a nation's economic strength and on which other industries can gradually be built up. The development of electric power is the prerequisite for industrial growth. Machine-making, ship-building, chemicals, locomotives, automo-

biles etc. should follow. All these, and others like them, are wealth-producing and work-producing industries which do not create unemployment elsewhere. Lighter industries should not be encouraged to begin with, partly because the capital at our disposal is limited and required for heavy industry, partly because they are likely to come into conflict with cottage industries and thus create unemployment.

Unfortunately industrial growth in this country has largely been confined to the lighter industries. The few attempts that our industrialists made to develop heavy industry were effectively scotched by the British Government. British industrialists, thinking of the brave new world to come, were more anxious to preserve their economic strangle-hold in post-war India than to think of winning the war by allowing basic industries to develop in India.

This ordered development of industry in India and coordination between large-scale, medium, and cottage industries, can only be achieved by national planning. There can be no effective planning without political and economic freedom. Nor can there be any planning without a great deal of State control. The basic industries and public utilities and transport services should in any event be owned or fully controlled by the State. The measure of control over others might be less. But it is desirable that any big industry which might come into conflict with a cottage industry encouraged by the State, should be fully controlled by the State. This will avoid conflict and make coordination easy.

The use of electric power has made an enormous difference to industry and it is now possible to decentralize even big industries. This works greatly in favour of small and cottage industries.

All these considerations apply to normal times. War conditions have, however, enormously enhanced the value of small and cottage industries, and it is here especially that the example of China is of great importance to us. It seems to be ideally suited to war conditions and for resistance to an invader. What has amazed me is the extraordinary production ratio of these industrial cooperatives. The monthly production value is stated to be two times greater than capital investment. This may be due to war factors; nevertheless it is astounding.

The democratic basis of these cooperatives, and their development on this basis in this warring world, is full of interest and significance. On this basis political democracy may survive; it is doubtful if it can do so on any other basis.

Neither India nor China is now going to have a normal capitalist industrial development. Yet go ahead industrially we

must, or we perish. We shall have to find our own way, to seek our own equilibrium. Possibly the future will lead us and others to a cooperative commonwealth. Possibly the whole world, if it is to rise above its present brute level of periodic wars and human slaughter, will have to organize itself in some such way.

JAWAHARLAL NEHRU

ALLAHABAD

PREFACE

During his trip to China at the end of 1939 Jawaharlal Nehru took a very particular interest in Chinese Industrial Cooperatives. It was one of the first things he expressed a desire to investigate upon his arrival in Chungking. Evidently Nehru at once appreciated the possibilities of applying in India the lessons learned by China in the experiment with industrial cooperatives as a means of democratic economic mobilization of latent productive powers of the people.

There are not many new creative movements in the war-torn world today that one can write about with enthusiasm and point to with hope, and it is certain that nowhere else in recent years has an idea emerged in another country which seems to fit so many different needs of India as does the industrial cooperative movement of China. In this period of destruction, construction is news and in this period of fascist aggression the rise of democracy anywhere is great news. In this day of disintegration, intelligent and workable methods of change are a phenomenon and in India a phenomenon of peculiar importance. It was with India in mind, as well as for the purpose of suggesting to America and Britain new ways of establishing a basis of economic and political cooperation with the East, that I made this study of "Indusco" in China.

The special reason why Americans and British should take the keenest interest in Chinese Industrial Cooperatives right now is, of course, the necessity to find practical ways and means of reinforcing their war effort in the Far East. In India as in China such an enterprise offers a very real method of strengthening the military efficiency of the Allied effort. When money and leadership can so easily win friends, failure to invest in production of this kind is a sign of economic and political myopia.

There is also the post-War economic depression to think about, and the necessity to raise the purchasing power and standard of living of a billion consumers in this part of the world, in order to ameliorate it. As a question of immediate diplomacy in both China and India, too, it is obvious that some healthy, "middle way" is required, a common economic program which can win the support of well-intentioned foreign friends as well as different

classes among the nationalists in Asia.

The subject is of interest to all colonial peoples. Cooperative management and finance have now been demonstrated by Chinese experience to be a surprisingly effective means of quickly industrializing a backward economy, without disturbing too drastically the social life of the Asiatic village and without destroying the virtues worth preserving in Asiatic family life. "Indusco" has successfully brought modern industry to rural China for the first time. How many semi-colonial, poverty-stricken, agrarian lands will follow this example is an interesting subject for speculation.

In the United States we are interested not only to see Asia industrialize, but also wish to see machine production adopted in South America, and this for a number of reasons. It could probably best be started there, and on a large scale, by cooperative methods, thereby reviving a stagnant economy before post-War depression sets in.

Inspired by the Chinese movement, the Philippine Commonwealth Government is now sponsoring an industrial cooperative program as part of what Manuel Roxas, Secretary of the Bureau of Economics, called an attempt to establish a "Producer-Consumer Society." President Manuel Quezon, a canny politician who understands economic necessities, gave his official support. The first cooperative, of Marikina shoe-makers, produced 50,000 pairs of shoes within a few weeks. Jose A. Lansang, the well-known Filipino radio news commentator, remarked in an article that "the C.I.C. of China may become in the years of reconstruction to come all over the world, after the present wars, the most significant contribution of the Chinese people to the new Far East."

Indo-China, Java, Malaya, Mexico and other agrarian countries are now all similarly struggling with economic problems that can never be solved except by a form of industrialization, which balances the national economy and improves the purchasing power and standard of living of the mass of the population.

The European War has already caused many economic dislocations and many more are to follow, particularly if British industry and trade suffer severely. Both Australia and New Zealand are using cooperative industry to meet the wartime emergency. Through the cooperative method of capitalization, and perhaps with Government loans, such countries could purchase a good deal of machinery from England, and set up an efficient mechanized production, particularly in woollens etc., as well as a certain amount of war industry for defense. Rewi Alley, the cooperative expert in China, is anxious to see that done. His father spent the last

twenty years of his life advocating the cooperative factory-farm for the New Zealand. Alley recently wrote to me in a letter: "I can see so plainly that my old Dad's ideas of the factory-farm must be worked in conjunction with Indusco. Cannot run normal hours on a factory-farm; if you have nothing for such a large staff to do during the off-seasons, rainy weather etc. With a HF Spinning and Weaving Set hooked up to a nearby waterfall, all the throw-out wool could be changed to socks, blankets, etc. and marketed through the already existing farmers' consumer coops in the townships. But first New Zealand would have to double its population with European and British refugees. The country would take twenty million instead of a million and a half easily."

Even in England there is renewed interest in the cooperative "self-governing workshop", due to the need for self-management of decentralized industrial units during the war. A newspaper item states that the Mechanics Union intends to organize small cooperative plants to hurry the production of airplane parts, for example. The trade unions could easily organize and manage small industrial units to speed up production and protect it from blitzkrieg. There are said to be about forty-four cooperative factories in England now.

It is now becoming a matter of mere survival in self-defense to build industrial self-sufficiency by the quickest and most feasible method. China's new Industrial Cooperative Institute in Chengtu will probably soon be receiving delegates and students from many countries, including Japan.

In this Power Age, decentralized industry and more humane conditions of factory work are an immediate possibility through the widespread use of electricity, as Henry Ford has pointed out. In highly industrialized countries at war it has already been found necessary to decentralize due not only to the fear of bombing in a "total war", as in China, but to paralysis and expense of transportation (gasoline shortages etc.) High smokestacks are only an invitation to destruction. What has happened to Tokyo and Osaka after a single bombing raid by America? The lesson may be enough to make the Japanese revise their industrial concentrations. Japan should be a fertile field for cooperative industry. Nearly half the workers in her manufacturing industry are in workshops employing under five persons, and about 70% are in plants with under fifty persons. This is how the diversification of industry is carried out. Unfortunately these are all sweatshops concentrated in a few cities, and none of the benefits of cooperative sharing go back to the workers to increase home consumption of goods now

being dumped abroad.

Not a few Japanese are watching the progress of the Chinese Industrial Cooperatives. The military in China have already launched both a bombing and propaganda campaign against it. It definitely interferes with their plans for colonizing China and is even supplying war equipment for the opposing troops. Other Japanese, however, who fear the instability of their top-heavy monopolist economic structure and seek for methods of democratization, take an alert scientific interest in the experiment. In 1926 real "producing" societies in their own country were dropped due to a conflict with private capitalist enterprise.

The cooperative movement in the United States is also concerning itself with producers' societies, rather than being content with merely consumers', marketing and credit organizations. They have not only their own gas stations but their own oil refineries and blending plants, as well as making tires and batteries. Oil cooperatives alone did a business of \$110,000,000 in 1937. There are cooperative farms, cooperative health associations and cooperative insurance societies. Twelve percent. of all farm purchasing is done through cooperatives. The Department of Labor figures show that in 1936, the total number of distributive and service cooperatives was 4,100, with 830,000 members and a total business of about \$190,000,000. In 1938 the consumers' cooperatives sold \$500,000,000 worth of goods.

We may also mention Russia, which had in 1936, not only 39,000,000 members of consumers' cooperatives, but 2,350,000 owner-producers in cooperative industry—surviving from the old *artels* which produced half the manufactured goods of Russia in 1914, then totalling 2,400 million roubles annually. Even Italy still has 6,000 labor-contract cooperative societies which built the public works of which Mussolini boasts.

Since the Rochdale weavers fathered the modern cooperative movement in 1844, the International Cooperative Alliance, which includes agricultural and industrial producers' societies, credit unions and cooperative banks, as well as consumers' societies, has become affiliated with a membership of 70,000,000 in 38 different countries. These cooperatives are estimated to do about twenty billion dollars worth of business annually.

The history of this new cooperative industry in China is one of the most dramatic stories that has come out of the Sino-Japanese war. One can never give up hope in China somehow. As soon as you feel that all is lost, some meteoric phenomenon like this appears and you realize again the immense vitality lying immobile

in this vast nation. This is a story of pioneering on one of the last frontiers, a frontier that stretches from Inner Tibet and Inner Mongolia in a vast continental crescent to the southern China sea.

In the midst of the wars and social upheavals that characterize our era, this dynamic movement now stirring in the heart of interior China is of no small significance. Its potentialities are very great and the mere struggle to rebuild industry on a democratic base in the middle of a battle-field is an exciting one that has already captured the imaginations of hundreds of observers interested in social and economic change and in the fate of China. A titanic fight has been waged between China and Japan since July of 1937, yet today the outcome is as much a question as ever. The answer is not to be found in statistics on battles won and territories occupied. It is to be found in the underlying economic factors which determine Japan's powers of perseverance and China's powers of resistance. One learns a great deal about actual conditions in the interior of China by study of the progress and difficulties attending the Industrial Cooperative movement.

What is to be the form of Chinese society after the war? Will it be a colony monopolized by Japan? A colony controlled by international high finance under Japanese suzerainty? A divided nation, half-slave and half-free, that cannot stand? A Communist state? A cooperative commonwealth? At present there is a high-powered little engine running fast along the "middle way", and unless the locomotive of history takes a sharp turn or is wrecked in its tracks, there is some possibility that China may become a democratic cooperative society moving toward prosperity and peace on its own momentum.

The material for this book is taken from personal experience, first-hand information gathered by my husband, Edgar Snow, during an inspection tour of the cooperatives in China, letters from and recent conversations with Rewi Alley and other staff members, and various reports from the field.

The writer wishes to thank the editors of the following magazines for permission to include parts of her published articles on the subject: *Pacific Affairs*, *The Nation* and *The China Weekly Review*.

N. W.

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I. PROBLEMS AND SOLUTIONS

1. NINE IRON RODS

In August of 1938 a small event of large significance occurred in China: the first unit of the Chinese Industrial Cooperatives was created in Paochi, one of the remotest villages of the far interior. When that group of nine illiterate refugee blacksmiths agreed to organize a cooperative foundry, they laid the foundation stone for a movement that may revolutionize the life of the Chinese village and therefore the basic economic life of China. Nine months later China had 1,200 societies. By 1940 five main headquarters were directing activities in every one of the original eighteen provinces except Kiangsu (the Shanghai area), and depots existed even in Sikong, Ninghsia, Sinkiang and Kokonor. Mobile guerrilla units were impudently carrying on *behind* the Japanese lines in Anhui and on the edge of the battlefield in other regions. China's three-depth "Indusco Line",¹ as it is called, is therefore building economic defenses on all fronts and, not to be discriminating, in both rears—the enemy's as well as its own. This line stretches in a vast crescent from the deserts of central Asia to the southern China sea. On the far western salient a Tibetan Living Buddha promotes Indusco affairs. On the other extremity, a young American Quaker is depot-master at Kwangchowwan near the French Indo-China border where he takes care of refugees from the tropical island of Hainan, neighboring the Philippines.

On October 31, 1939, a squadron of Japanese bombers paid a special visit to Paochi in order to annihilate this new form of industry—they announced their intention in Hankow beforehand. By accident they happened to destroy the pioneer unit. But the blacksmiths did not run away, as city workers have been forced to do since Japan began her systematic campaign of destroying competitive Chinese industry. Their loss was only \$100, Chinese currency, far less than the cost of the bomb. Helped by a \$60 loan from the local Cooperative Union, they simply picked up the iron

¹ "Indusco" was the term invented by Rewi Alley as a cable address for all headquarters. It soon became popular as the designation for the movement, though "C.I.C." is also commonly used.

fragments of the bomb and what remained of their machinery and rebuilt their shop. Now they are operating again and those fragments have doubtless become part of a new anvil.

That Japanese bomber can never again find their foundry except by another accident. It looks like any other house in the hundreds of villages on the landscape. To be sure of destroying it, they must destroy the whole village. Japan could certainly afford to do this. But she cannot afford to pay for the bombs, planes and gasoline required to annihilate all the villages in China suspected of harboring industrial cooperatives, especially not if the United States refuses to provide the materials for such destruction in the future. And even if the Japanese did take on such an extravagant enterprise, the cooperative members would simply go out and create new industries in other places with incredibly little capital. Organized for cooperative effort, the tremendous reserves of labor-power in China are being mobilized to create new wealth and a new society in the midst of war. Given a "Chinaman's chance", they will continue to succeed. It cost China only \$2,500,000 national currency to create the first 1,200 industrial cooperatives. It undoubtedly cost Japan that much to send out a few full-size bombing expeditions.

For example, in American money (figured at ten to one), it costs China only \$50 to start a surgical gauze cooperative. A candle or soap-making unit can be started for \$100; \$200 is sufficient for a cotton weaving cooperative. It is estimated that the Industrial Cooperatives can employ 100 refugees with a loan amounting to from \$500 to \$700. That means you can give a man a permanent job for an average of \$5 to \$7. This soon takes his family off, not relief, but starvation. Later on when the loan has been paid back into the devolving fund at 6% to 8% interest (and barring acts of the God of War, most of the cooperatives are able to do this within a year or so), it will give another man and his family a livelihood, too, and still another *ad infinitum*. Commodity goods are at such premium in interior China today that the cooperative industries make a profit almost immediately.

These cooperative people have found a method that works, a way to launch an economic offensive against the invader that cannot be met with military force, a way to industrialize the backward interior that has been searched for in vain in the past. Japan's plans for economic empire over China can never succeed if China industrializes in self-defense, thereby holding its own market, creating its own commodity production and supplying its armed forces with equipment to carry on simultaneous military

resistance.

Two months after our blacksmith friends came together, the Northwest Headquarters of the Chinese Industrial Cooperatives had organized 40 cooperatives nearby. By January of 1940 there were over 500, scattered through five provinces, with a monthly production valued at about \$1,000,000. Registered members were 4,500, while about 15,000 other persons participated in the movement in emergency work and other activities.

Nearly all these cooperatives were successful. The blacksmiths themselves, chosen entirely by accident for their pioneer role, were the problem child of the Northwest. The writer asked George Aylwin Hogg, a young Cambridge man who acts as English secretary in Paochi, to get the whole story of this cooperative for historical purposes. He replied:

"The blacksmith co-op is the miracle of Paochi. Whenever one of the intellectuals working on the C.I.C. staff goes off the deep end about the stunning growth of the movement, the vast significance of industrial cooperation for the future of China and the rest of the world, he is sent along to see the blacksmiths—first-conceived industrial co-op in China.

"He invariably comes back laughing.

" 'They are the most unconscious fore-runners of a movement I ever saw!' he exclaims.

"They still eye each other rather doubtfully, and every once in awhile they divide all their iron, tools, fuel and finished goods into nine individual piles, and go off into separate corners of the workshop."

On one such occasion, one of the best lion-taming organizers went posthaste to the scene and demanded to know why they couldn't understand that nine iron rods bound together were stronger than nine iron rods separately. They looked the intruder over with professional scorn and remarked that nine iron rods bound together are harder to bend than nine iron rods bent separately.

Three of the members resigned and took away their original \$36 investment, but the rest buried the hammer and tonga, and "in spite of their dour native scepticism, and in spite of the fact that they have been outstripped by hundreds of other co-ops in the Northwest, they remain a genuine example and object lesson in workers' cooperation."

Lu Kuang-mien, the organizer, did not use the best of discretion when he chose a blacksmith to lay the foundation stone for cooperative industry in China. As everyone knows, the village smith is everywhere the symbol of rugged individualism and always

a one-man corporation. Because the blacksmith is the least collective of workers, however, the story of this group is significant as showing cooperation at its hardest.

Lu arrived in Paochi (which means "Precious Cock" and was named after a famous fighting rooster) on August 23, 1938. It was raining and the streets were full of mud and water, he reports.

"Paochi at that time was a little mushrooming border town, invaded daily by thousands of refugees pouring off the trains. It was dirty, noisome, pestilent and insect-ridden. Ninety percent of the population were living in mud and straw shacks and caves hastily hollowed out. The city for miles around was teeming with half-starved humanity, and it was every man for himself in a rock-bottom and primitively competitive struggle for existence."

Early next morning Lu waded through the mud and came upon a blacksmith, a "slim old man with a brown face, eyebrows curving low and very thin, his eyes hidden under heavy lids."

"Well, countryman," Lu saluted him.²

"The sweaty old blacksmith continued his work, the hammer ringing and sparks flying from the red iron.

"Well, countryman, won't you stop a moment? Where did you come from?"

"The old man stopped at last, wiping the sweat from his forehead, but he did not raise his eyes, waiting silently in the expectation of some business."

Eventually he told his story. He and other itinerant workers had walked 150 miles from Honan when it was invaded and were travelling from village to village plying their trade, each competitor trying to get the best spot first. The old man and his family had brought only tools and some cooking utensils. He was a stranger, with neither friends nor relatives.

"Why don't you work together?" said Lu, but on hearing this the old man looked at him skeptically and bent his head in confusion. "If you work together," Lu went on, "you need use one pan, so to speak, to cook for many people. It saves time and trouble. Young and old can work together. The more of you there are, the more work you can do."

Lu explained that he wanted him to start an industrial co-operative together with other blacksmiths, that he wanted them to pool their equipment and do their marketing and purchasing

² Part of this narrative is taken from accounts by Lu-Kuang-mien and G. A. Hogg, and part from a translated newspaper story by Sung Tse-ci.

together, and to eat and live together to save expenses. If this were agreed upon, Lu promised to give the cooperative a loan to build up a sizable business.

Lu went around to other blacksmiths and made the same offer. They were "intensely interested but intensely suspicious. The thing that worried them was what was *he*, K. M. Lu, going to get out of this? Nothing? Well, that was phoney. Nobody did things for nothing, as far as they had ever come across. Better go on in the old way, and not take any risks."

Nevertheless, nine blacksmiths agreed to join up, and made an appointment to come to Lu's office next day to organize. Lu excitedly wired to General Headquarters: "An iron-working cooperative is established."

Lu was a little previous, however. Nobody arrived at the appointed hour. Lu went back to his original prospect and asked what was wrong.

"I could not get them together," replied the old man, hanging his head. "They say they want time to consider," and he opened his eyes wide, filled with confusion.

Lu, however, got busy putting up his posters and talking with other refugees, and soon the town was abuzz with excitement. As soon as the blacksmiths saw that the idea was considered authentic by the public and other workers were planning to join, they came around in a body formally requesting the promised loan.

In every new village, the idea was received with incredulity. This region near Sian was the cradle of Chinese civilization. In all their "five thousand" years, nobody from the Government had ever before come around offering these inhabitants something for nothing. When they were convinced that it was not just another racket, the poor workers and refugees were in a daze of delight. Many of them burst into tears when they first received their loan, granted with no guarantee other than confidence in the skill in their hands and faith in the essential honesty and goodness of the common people of the country. In only one case in the Northwest was there an instance of embezzlement—this was done by a gangster from Hankow, who was promptly dismissed and the money recovered.

Our blacksmith friends were so poor they could each contribute only \$36 worth of tools and iron and subscribe to only \$140 in shares. Their capital was a loan of \$1,200 from the Induaco Headquarters (about \$120 in U.S. currency). Liability was fixed at twenty times shares. Within about 14 months they had paid back that \$1,200 loan at 6% and "at the end of 1939, after proper allow-

ances had been made for deterioration, loan repayment and interest on loans and shares, 10% of the remaining net profit (totalling \$65.40) went to the C.I.C., 10% to the Union's Common Good Fund for education and health services, 30% to reserves, and the other 50% to themselves in the form of dividends." When last heard from, they had negotiated a new loan for \$1,500 and their monthly turnover is about \$1,000 of which \$100 is profit; this in spite of the fact that "costs have more than doubled; a year ago iron cost 60 cents a catty, now it costs \$1.30; coal cost \$1 for 50 catties, now it costs \$1 for 20; and food has risen from \$7 per man per month to \$12 or \$13. But business is still brisk and the atmosphere is brighter. A young organizer goes down every week to help teach accounting and look things over, and the original organizer, who now more than ever regards himself as father of the first co-op, still drops in when he has a chance."

These blacksmiths buy their coal from an Indusco mine 50 miles away, carried to the smithy by a Transport Cooperative made up of mule-carts with pneumatic-tired wheels (old tires from derelict Fords mostly, that cannot be obtained even for \$700 a pair). Their noodles are made of flour from a cooperative mill nearby, and they purchase other necessities from the Indusco Marketing and Supply Department at the lowest possible prices—toothbrushes, flashlights, shoes, socks, clothing, candy, soap, towels, medicines, paper, ink, blankets, candles, wine, condiments, food-stuffs—practically everything for daily use and of such uniform good quality that private firms are stealing the trademark to ensure a market. Their children go to the Indusco primary school and have been vaccinated at the cooperative clinic. Members hold their regular meetings and vote in solemn conclave on all problems in true democratic spirit, electing their own officers and policies.

2. AGENDA FOR DEMOCRACY IN CHINA

This infant decentralized cooperative industry of China, however, is far more important than it appears on the surface, particularly now that the European war has disrupted normal relations everywhere. The meaning of its potentialities may be listed briefly, looked at from the point of view of the international public.

1. It is the only feasible method for widespread industrialization of China during wartime conditions, and this industrialization is essential to winning the war for the following reasons:

- (a) In order to keep up army morale by providing the armed forces with daily supplies and by giving jobs to disabled soldiers; by providing a livelihood for widows, orphans,

and the families of soldiers at the front; by improving general economic conditions so the interior can support the several million men under arms without too much strain on the limited power of taxation;

- (b) In order to keep up civilian morale by providing the commodity market and absorbing the peasant's raw materials, at reasonable prices, which at the same time relieves him of the necessity of purchasing Japanese goods and selling his products to the enemy, thereby helping pay for the conquest of his country; and in order to take care of the vast refugee problem and relieve poverty, replacing banditry and disruption by a new economic order;
- (c) In order to mobilize the labor-power, capital and natural resources of the country in productive work during the emergency; and to utilize all technical, professional and skilled workers to the utmost.

2. It brings the Industrial Revolution to the interior for the first time, and this is necessary for the regeneration of the basic economy of China. Mechanization of industry and agriculture will increase production, create new wealth and destroy feudal remnants, thereby creating a normal, healthy economic system.

3. Cooperative industry lays the foundation for democracy in China. While Fascism spreads destruction over Europe, and annihilates the concept of human dignity and freedom, here is a golden opportunity for one-fifth of mankind to march progressively forward and build a powerful democracy in Asia, as an ally for the forces of freedom everywhere.

4. This industrial movement in China provides a channel through which foreign governments and their peoples can strengthen a sovereign China and defeat imperialist aggression, building a permanent democracy at the same time. It may be possible to stay out of war in the Far East if good use is made of this opportunity. In event of war, such industry is vitally necessary on the continent as an ally to improve Chinese resistance.

5. From the point of view of international trade and commerce, such industry could provide a long-term market for capital goods and stimulate reciprocal trade. It is at present a fairly sound investment for capital now idle and restless abroad.

6. It is important to industrial and labor interests in other countries, including Japan, that the China coast should not become another source of trade rivalry on the high seas utilizing slave labor to undersell their own products. It is important that China should

not become an imperialist power, nor an instrument for future imperialist conquest by the Japanese. If, instead, the interior is industrialized on a democratic cooperative basis, this danger will be removed. Such a healthy, balanced industry will not be competitive abroad, but will raise purchasing power at home and create its own market, as well as that for foreign trade on a basis of equality.

7. China is constantly the victim of internal disunity and political strife, no less within the Kuomintang and among rival cliques, than in the larger spheres of wide economic antagonisms. A progressive economic program is required which will absorb all the quarreling energies of the nation and actually begin to put into effect Sun Yat-sen's Three Principles for the first time. In the present emergency, development of cooperative industry helps everyone and harms no one engaged in national defense.

8. If the industrial cooperative movement spreads rapidly enough throughout every Chinese province and builds up economic relations on a common program between the Government regions and the 8th Route Army regions, it may actually prevent a civil war in China. It is a middle way compromise that should be acceptable to both sides. Rapid industrialization may relieve and transform the tension of agrarian conditions sufficiently to aid materially in solving the land problem and the problem of providing for refugees and the huge army which the Chinese peasant must support both in guerrilla regions and elsewhere.

9. Democracy in China is an essential step toward democracy in Japan, and a healthy industrial economy in both countries is essential to peace and progress in the Far East. Where China leads, Japan may be obliged to follow.

10. The human interest element concerned is obvious. Such a constructive movement in the midst of the wars threatening to engulf every continent is an inspiration hard to find elsewhere. Even a small individual contribution of US \$7 will give one refugee a job. And this money goes directly into the common fight for democracy and against aggression and reaction. Once in a lifetime, every man and woman with a paying job in more prosperous countries can afford this small investment in human progress. Perhaps we cannot afford not to give it.

3. THE HOUR OF DECISION IN THE FAR EAST

The importance of China as a key to the problems of the Far East needs no reiteration. The conflict in Europe, however, creates the urgent necessity for a concrete program which will work toward

the permanent constructive solution of these problems.

The historic moment is approaching which will determine whether the vast continent of China is to become a colony monopolized by Japan, an economic colony divided among the Great Powers, or an independent nation. It may be there are actually only two alternatives—constant chaos and confusion and stalemated war or a clean-cut Chinese victory. It has been axiomatic since 1900 that China cannot be divided up in a friendly spirit. Any attempt to do so can only result in future wars between the rival powers and also against the dissatisfied Chinese. It is likewise highly doubtful that a Japanese monopoly would be tolerated either by the Chinese or the foreign powers. There is only one basic solution, the same one incorporated in the Nine-Power Treaty, that the Powers agree "(1) To respect the sovereignty, the independence, and the territorial and administrative integrity of China; (2) To provide the fullest and most unembarrassed opportunity to China to develop and maintain for herself an effective and stable government; (3) To use their influence for the purpose of effectually establishing and maintaining the principle of equal opportunity for the commerce and industry of all nations throughout the territory of China; . . ."

Whether China is to be colonial or free depends, in the end, on whether or not it is able to build a modern industrial base strong enough to win and maintain such freedom. No military victory over Japan, whether won by China, America, Russia, or Britain and France, can guarantee the independence of China unless accompanied by swift industrialization. Otherwise the resources and market of the country will still be at the mercy of Japan and rival powers. Such a vacuum, exhausted of strength, must inevitably draw imperialist influences into it, and the old cycle of rivalry and wars will begin again. In other words, who controls the means of industrial production in this machine age, controls political power. Sovereignty depends upon a functioning industrial base, strong enough to hold the balance of power against the domination of other industrial countries. Once that balance is created, reciprocal trade and commerce can be carried on and financial transactions arranged of equal benefit to each nation, without the weaker becoming colonial to the stronger.

In spite of all the suffering of war, and partly because of it, China's fight for freedom has had salutary effects on the nation. The awakening of national and social consciousness, the enforced breakdown of traditional inertia, the emergency need for developing all available resources, are gains that might not otherwise have

been achieved for a long time. It is difficult to discover great national movements in history where the momentum of human progress has not been prodded at by the angry point of a weapon. If China wins, history will record that this fight for liberation was the best thing that ever happened to the country. If she loses, it will not have been entirely by default.

The war has created an urgent necessity and a healthy condition for change in China. Many pathological conditions are being swept away, leaving a clean path for future development. The New "Order" in East Asia may be better than Japan imagines. Most important of these potential changes is the future industrialization of the country. What direction will this take?

In China, modern industry has had a particularly unhealthy development. It grew up under the shadow of foreign imperialism in the treaty-ports. It could not compete with cheap mass production from Japan and other countries except by treating labor even worse than in the classic period of the Industrial Revolution in England. Thus it employed a large proportion of women and child-labor under a contract and apprentice system by means of which they were literally slaves. It is estimated that after 1927 about 60% of the factory workers in Shanghai were young girls under twenty. In the 1925-27 Revolution labor was highly rebellious, due to the pressure to which it was subjected, and when this failed, the owners took the occasion to dismiss former employees (not a few of whom were killed during those years) and substitute a more docile variety, even though it meant robbing the cradle of both mother and child in many cases.

The first World War provided a great stimulus to industry in China, as in Japan, yet when the Great Depression came at the end of the 20's, it did not affect the industrial centres in China so badly as elsewhere. Shanghai, in fact, experienced a boom. Capital immigrated from abroad, seeking cheaper labor and raw materials. Japanese and British capital particularly took advantage of the situation. British textile mills in China flourished while those in Manchester rusted and their workers went on the dole.

At the same time, Chinese landlord capital and warlord squeeze fled from the interior seeking foreign protection in the treaty-ports during the civil war. Much of it remained idle in the banks but some was invested in factories.

Thus industry was concentrated on the coast—in Shanghai, Tientsin, Wush, Hongkong, Canton—and at Nanking and Hankow on the Yangtze River. This was admirable from the point of view of the Japanese, who promptly proceeded to annihilate it in

1937. A pathetic commentary on the colonial situation of Chinese industry is the fact that after the 1932 war the Chinese built hundreds of new factories in Hongkew, the Japanese area of Shanghai. In 1937 nearly all of them were destroyed.

Lack of transportation and revolution in the interior made it difficult for coastal industry to exploit the Chinese market. Hence China was already exporting textiles and cotton yarn abroad, in competition with the Japanese. Shanghai could sell goods by boat more cheaply to the South Seas than to villages only a few hundred miles inland.

The immense export of capital from banking countries after the World War would have made a colony of China in no time, had it not been for the Nationalist movement and civil war which made investment so precarious. Idle foreign capital was waiting to pounce upon every available new field. As soon as the Chinese Reds were driven out of the south in 1935, British investors became much interested in south China, for they felt they could cooperate with Chiang Kai-shek. It was partly the fear of the increased domination of British and American capital in China that led Japan to take over military occupation, as well as the desire to destroy the potentialities of infant Chinese industry.

The Sino-Japanese War has created a very interesting situation in China, a crucial moment that will affect not only the Chinese but the whole economic structure of our international system. Here is a favorable moment for an industrial development, comparable in some measure to that called for after the Civil War in America or in recent history to the Five Year Plan in Russia, after the disruption of its civil war. The factors are these: An Army of practically free labor—not less than fifteen million nearly destitute and twice as many displaced villagers and war refugees seeking a way to earn a livelihood. Wartime destruction crying out for rebuilding. An existent demand for unavailable commodity goods, for during many years Chinese village handicrafts have been destroyed by the influx of foreign manufactures and the market for modern industry has been laid open. An European war relieving China from economic pressure and dumping from overseas (and creating new demands for Chinese exports.) A wartime blockade of the interior, automatically raising a wall against Japanese and other imports. Sufficient untouched natural resources and the possibility of purchase of machinery, from America particularly.

One material thing is seriously lacking—capital. Production will soon create this, as in other industrial countries. Foreign loans should be available.

In England they had to vote the Enclosure Acts to drive the farmers into the factories, and to patrol the high seas in order to guarantee markets. In America we had to import millions of immigrant labor. In China, Japan has gratuitously created the disruption out of which emergency construction can develop.

The dramatic part of this situation is, of course the Japanese factor. This historic moment is also favorable for Japanese industry. Japan is out to subjugate China forever economically. She is risking an empire already won for this purpose.

If China industrializes independently, new wealth will be created, purchasing power developed, the standard of living raised, and China will be able to trade on a basis of equality with the rest of the world. The four hundred and fifty million customers have always been a myth and will continue to be until the Industrial Revolution creates new purchasing power for them through wages and absorption of farm products. A balance of power will be created against Japan's imperialist expansion, and those ambitious little islanders will be obliged really to "cooperate" with China and the rest of the world.

If the contemplated "Japan-Manchukuo-China" block is realized, the opposite result will follow. Instead of creating new wealth in China, Japan can only drain the country dry and impoverish it, leaving a Dead Sea where a flourishing economy might have been that would raise the progress of mankind in general to a new level. Both Japan and China will be a drag on the progress of civilization, so-called. Imperialism will get a new lease on life as a vampire sucking the half-dead body of China. That means more wars in future and more scramble for colonies on the part of other countries in self-defense. Temporarily, the economic subjugation of China will help Japan but in the end it will work to her detriment. She will "need" the Philippines, the Dutch East Indies, Indo-China, Siam and India to replace the market she has destroyed by squeezing China and Korea to death—and after that South America and all other semi-colonial areas. Before taking these, it is not unlikely that the smokestacks of Tokyo and Osaka will be leveled by a bombing expedition or artillery bombardment from somewhere—another beautiful contribution to the health, wealth and happiness of mankind.

Imperialism creates depressions in its colonies much worse than the parent-capitalism creates at home, and gets involved in its contradictions much more quickly. The colonials get none of the benefits of foreign capitalism and all of its evils. The purpose of finance in going abroad is to get a higher rate of return than it

can make at home. Wages are only enough to pay for a rice-bowl and raw materials are bought at production cost, in order to guarantee this high return and pay for the risk and dangers involved. Puppet dictators must be bribed and maintained, the colonial peoples revolt, and a general mess ensues. Having denuded the colony of purchasing power and destroyed its market, capital must seek out other less exploited areas, where it comes into collision with its rivals. And we have another war.

This powerful vacuum existing in China cannot but have a great drawing power for foreign capital, now idle and restless at home. It is an open invitation on an otherwise blank social calender. The problem is whether to go arm-in-arm with the conquering Japanese, or whether to block them at the door, and pay one's respects direct to the hostess. The Japanese want to borrow the money and utilize it for their own purposes, repaying the interest rate without political obligation. It may be that the Great Powers will insist on sharing in the venture equally, however, if they consent to finance it, though this can only lead to future war.

The other alternative is to break Japan now that she is vulnerable. America might go to war within the next two years for this purpose. Or we might help China win.

With or without a war, however, there is no fundamental solution to the problem in the Far East except the industrialization of China, however it may come about. It may seem rather late to discuss this under the head of Chinese sovereignty, but in point of fact it is not too late, though the process may be slow. It is still possible to build an industrial base sufficient to keep one or more million Chinese soldiers and hundreds of thousands of guerrillas in the field for a long time, and in that war of attrition China will win. The industrialization of free China means reducing the Japanese hope for profits and preventing the realization of her economic plans. This will definitely dampen the enthusiasm of her people at home, already in a low condition, and of her expeditionary forces likewise.

Granting that it is still possible to industrialize the China interior, is it desirable to make China an industrial power to compete with the present over-production and under-distribution that exists in other countries? Will not China become another imperialist competitor? In the Philippines, the Netherlands East Indies, Siam and Java there is almost as much fear of Chinese economic domination as of Japanese, for Chinese immigrants there control most of the retail trade and in some cases

the price of rice. This brings up the question of the method of industrialization—and the special significance of cooperative management. If the *coastal* industrialization had continued as before the war, or if this is now revived by joint foreign capital cooperating with either the Japanese or Chinese, that is a foregone conclusion.³ The China coast would be merely another source of international trade rivalry. Such industry could sell its products overseas much more easily and cheaply than to the interior of China itself. It would not hesitate to do so. Even now a semi-Fascist clique in China is shouting for resuming control over Tibet, Inner and Outer Mongolia and Turkestan, as well as Manchuria and even Korea—of reviving the Chinese Empire. Chinese would be just as fond of becoming imperialists as any other people, given the opportunity, and certainly we Westerners have no stake in subsidizing either Fascism or imperialism for the Chinese, though we do have a big stake in helping a prosperous, democratic China.

Big industry concentrated on the China coast could not easily serve the China interior, unless a huge development of railways and roads took place, which is unlikely. In any case, it would do little to raise purchasing power and improve the long-depressed market in China. Foreign capital would take its high profits back home. In order to compete with mass production elsewhere, it would be necessary to utilize more and more machinery and to give back less and less in aggregate wages to the consumer-producer.

If industry is developed in the interior, however, it will both provide and create its local market. The general economic development it would bring about would keep Chinese industry busy at home indefinitely. China is a continent. It need not interfere with the economies of other nations if its economic development does not follow imperialist lines. It can trade normally and reciprocally with other countries. Its own potential market is so vast that if the fruits of industrialization are widely distributed among the mass of the people, it will have no surplus of commodity goods for export. Under the present centrally-managed Industrial Cooperative system, for instance, the producer has a share in the profits, but must also contribute to a revolving fund which provides for further development. The cooperative system prevents the accumulation of capital wealth in the hands of any individual, and disperses it widely. Cooperative industry tends constantly to raise the wage level, thereby fundamentally solving the "cheap Oriental labor menace" which so exercises the minds of American

³ For comparative figures on industry in Shanghai and the interior, see Chapter on "Industrial Shanghai vs. Interior China."

and British labor and causes industrial owners to want to move their enterprises to the source of such cheap labor, or to import the Oriental workers as in the past.

A good deal of foreign, largely American and British, money has gone to China in the past ostensibly for the purpose of economic development. Much of it repaid high profits to the lenders. Much of it was wasted economically, although the Government still repaid its interest obligations out of tax revenue and customs, thereby further draining away the nation's wealth. There were many reasons in the past why no amount of foreign money could develop China, one of which is that it was always loaned to incompetent and reactionary military dictators who promptly used it in civil war. This has been true from the days of the T'ai ping Rebellion. We never loaned money to Sun Yat-sen, who genuinely believed in the development of his country's economy. If we had, China might now be a normal industrial state and one of our best customers instead of 17th on the list.

In the meantime, more of the wounded die of cold and undernourishment than of their wounds. China's gallant army is marching on a famished stomach, and the poor people are sacrificing to support the war. Even an investment of 25,000,000 Chinese currency in industrial cooperatives for war purposes would supply this army with blankets, clothing, shoes, stretchers, hospital supplies, ordinary munitions and other daily necessities. For example, Indusco has already filled an order for 400,000 woolen army blankets, and has received another for 1,500,000. Its machine shops have produced a good hand grenade, a sub-machine gun, a Mauser pistol, an automatic rifle and an ordinary rifle. Unfortunately China is poor in economic experts, especially in army circles, and the possibilities of building a real war industry have not yet been touched.

There are still so many possibilities of development in Free China that disinterested outside observers accustomed to American or European efficiency can hardly resist promoting it. It is not what has been done in the field of cooperative industry, for instance, that is of interest; it is how much can still be accomplished merely with a little organization and technical training. Within less than a year, a handful⁴ of American-trained Chinese engineers created over 1,200 Industrial Cooperatives with a fund of about Ch. \$2,500,000 which they had to coax out of private and Government relief funds and which they did not receive in time to salvage the

⁴ The C.I.C. has only 20 first-class engineers, while the National Resources Commission has about 200.

necessary machinery and to import equipment before the fall of the industrial cities and the blockade of the coast made this expensive and difficult. This set up in industry over 15,000 members and employed at least 20,000 persons. The ratio of production to capital in interior China may be judged from the following estimate made of the Indusco movement: In December, 1939, the total value of *monthly* production of the whole chain of Industrial Co-operatives was averaging about \$3,000,000, with an invested capital in the field of less than \$3,000,000.

One cannot resist speculating on what could be done in Free China with a certain amount of imagination and investment capital. There is a large amount of idle capital in Shanghai today which could be put to work in interior China even now, and eventually repay itself at a low rate of interest, guaranteed by the increased strength of the cooperative movement. The stimulus to trade, agriculture and mining would be immense at the same time. The ultimate future of the trading interests of Shanghai, Hongkong and Tientsin depends on development of the interior. Production would create its own market, while the Chinese army would absorb a great deal of the output, saving high costs of imports ten or twenty times due to unfavorable exchange.

We in America are building a fleet of battleships, directed primarily against Japan. The first eight cost \$90,000,000 apiece. The new super-battleships proposed would each cost from \$100,000,000 to \$150,000,000, and it would take seven or eight years to put them into service. If we are even casually interested in checking Japan's imperial ambitions before it is too late, we might put about one-tenth of that money into industry in China, which will serve to defeat not only her military but economic plans. For the cost of a hundred million dollar battleship we could probably build 480,000 cooperative factories, for this would exchange at over ten to one. This war industry could keep the Chinese armies in the field indefinitely and hundreds of thousands of guerrillas. It would supply ordinary munitions, clothing, medical and hospital supplies, nearly all kinds of equipment. Such an ally should be worth that much to the American Navy in event of war, and worth a hundred times more to the American people to keep us out of war. If China wins, she can repay this loan. Yet we are going to scrap that battleship one day. And if we want really to make good use of it, we shall have to send it on a pleasure cruise to Japan to bombard her war factories to the ground. That is hardly conducive to a solution of the Japanese question. Of course, no Annapolis man would admit that mobilizing four hundred

million Chinese and all their resources would be more effective than a couple of American battleships bent on real mischief, but they will not deny that a good cooperating war base on the continent would be a help rather than a hindrance.

The important reason for actively encouraging a democratic China, however, is to expand the international base of progressive democratic tendencies in order to hold the balance of power against the spread of militarist, Fascist, and reactionary forces. In spite of her past history, China is really a great hope on this horizon. All she needs is a good push from behind. We cannot afford to put our money into sterile undertakings—not when it can be invested in a permanent productive base as a fortress for democracy in the East. An ounce of effective Chinese economic resistance is worth a pound of Japanese imperialist flesh nearest the heart—for Japan's search for profitable markets and raw material is her arterial life line.

It is possible for the Western powers and America to assist in building China up through *cooperative* industry without impairing Chinese sovereignty and becoming involved in imperialist exploitation and rivalry, for such industry is controlled by the workers themselves directly, hence no divided spheres of influence will result from such loans.

The importance of the industrial cooperatives in China as a democratic movement has been well expressed by Mrs. Francis B. Sayre, wife of the United States High Commissioner to the Philippines, and Honorary President of the Philippine Association for Industrial Cooperatives in China. In a radio broadcast on February 20, 1940, she stated:

"Our hope is that the method may re-make the entire economy of China, lifting the levels of living for millions of people, utilizing great untouched natural resources that can be made available, and helping to relieve the combined horrors of homelessness and lack of work . . .

"The industrial cooperatives are China's adjustment to a new situation . . . They are directly in line with promotion in China of democracy on a grand scale. Every cooperative worker is an owner, and therefore a leader, in his new task. A new social consciousness is evident in the vicinity of each unit . . .

In the face of a world of destructive energy, the dramatic quality of the work of industrial cooperatives in China is fascinating, especially when we can share in promoting it. The movement is epic in its possibilities. To save millions from poverty, disease, despair and death as a result of their own efforts, is a masterly way to prove the power of creative human enterprise . . .

"The local cooperatives are self-managing—and therefore democratic . . . This first, actual, experience in democracy, can easily prove the needed transition step for China's advance toward the republican form of government."

Recognizing "that the time so urgently calls for effective enforcement of our policy in this part of the world," several hundred American citizens resident in the Far East signed a petition to President Franklin D. Roosevelt on July 22, 1940, recommending a US \$50,000,000 Government loan to the Chinese Industrial Cooperatives. This was forwarded to Admiral Harry E. Yarnell, in support of his statement to the press on July 15, appealing for American support of the C.I.C. Admiral Yarnell stated: "The crux of the Far Eastern situation is in the relative staying power of Chinese and Japanese economies. To the extent that China's economy is strengthened, America can breathe easily—and spend less lavishly on a vast Pacific navy."

The idea of this loan is being increasingly supported by an influential body of American opinion. This was succinctly stated by Major Evans F. Carlson in a public lecture in Manila on August 27: "At this time the United States could make no more effective contribution to the cause of assuring China's early independence and thereby re-establishing peace in the Orient, than by making a loan to China, earmarked for the Industrial Cooperatives, of from twenty-five to fifty millions of dollars. China has the skill, the manpower and the natural resources. Provided with capital, she can develop an economic base which will enable her to turn a military stalemate into a decisive victory."

Mrs. Franklin D. Roosevelt, who serves as national sponsor in the United States for the Chinese Industrial Cooperatives, stated in her syndicated column "My Day", on July 24, 1940: "The Chinese people are making an interesting experiment in cooperatives, which we might well assist. Their success and their economic setup mean freedom of intercourse in the Far East with a people living under a democratic form of government—a situation which we must hope to see in both China and Japan in the future."

4. CHINA'S "INDUSCO LINE" AND THE INVADER

After the fall of Hankow and Canton, the war between China and Japan entered a new stage. This war is no longer basically military but economic in nature.

Japanese strategy is based upon the belief that by occupying and controlling all main lines of transportation and centres of trade in the large cities, they can automatically dominate China econo-

mically. They expect that after the initial period of patriotic sacrifice, the low margin of existence will force the hinterland to become colonial to these occupied areas by a gradual re-orientation in favor of Japan. They anticipate that, as in Manchuria, the people will themselves pacify the intervening countryside and suppress the guerrillas through the *Pao Chia* system of "mutual responsibility", because of their need for peace in which to plant and market their crops. If a Chinese peasant cannot harvest his crops his family starves to death. If the guerrillas attack the Japanese or their puppet troops in any vicinity, the Japanese hold the entire village responsible. In order to terrorize the population, the invaders have regularly burned whole villages and massacred the inhabitants. Teaching this lesson to one village serves to frighten a score of other communities.

As part of this strategy, Japan has systematically destroyed or taken over nearly all the former modern native industry of China, except a few Chinese-owned factories in the International Settlement of Shanghai, in the foreign concessions of Tientsin, and in Hongkong, where they are still protected by the foreign powers. By this method the Nipponese hope to render the occupied areas helplessly dependent upon Japanese manufactured goods, and likewise upon Japanese industry as the market for raw materials. In this they have already had considerable success. About 95% of the goods sold in occupied areas today is of Japanese origin. Japan believes that China's disintegrated agricultural economy, overburdened with millions of war refugees, cannot long withstand the devouring of a huge industrial machine ready to revive buying and selling, even at the price of colonialization. The hinterland, with its handicrafts previously destroyed by machine production on the coast and abroad, was already colonial to the China coast.

One of the immediate problems before Japan, in establishing her economic monopoly, is how to dominate the treaty-ports to break down the remaining influence of other Great Powers. By military control of the railways, coastal ports and internal rivers, and by a strangulation hold on the river-mouths which dominate Tientsin, Shanghai and Canton, Japan has tried to isolate other foreign trade from the interior and to monopolize the commodity market. At the same time she hopes in future to utilize these arteries to exploit the mines and other natural resources of China by slave labor and to transport raw materials to her home-factories.

Do the Japanese seriously intend to industrialize certain cities in China? A risky but golden speculative opportunity exists as shown by the present Shanghai war boom. These jerry-built

mushroom factories have frequently repaid their entire capital within a year. One large Shanghai cotton mill made a profit of nearly \$9,000,000 in 1938—unprecedented in history. So far, however, only the most venturesome have dared to invest, either among Japanese or Chinese. Hence in March of 1940 over three billion Chinese dollars were idle in Shanghai, and Hongkong was likewise a refuge for large amounts.

If the Japanese felt their conquest to be secure and had no fear of reprisals or war with America or Britain—and if they had the capital—industrialization would be on the program for Tientsin, Shanghai and Tsingtao at least. None of these conditions are given at present, however, and the uncertainty will exist for some time to come. If they could confiscate all the Chinese and foreign capital in the treaty-ports, they would have the money. It is a temptation.

Mitsui interests, for example, are ruthlessly trying to expand their trade in occupied China, but hesitate to invest real capital in industrialization, though they have had no qualms about taking over any existent Chinese plants. For instance, they fell heir to seven flour mills in the north and two others in Shanghai. Their biggest investment in China, the Shanghai Cotton Manufacturing Company, seized the 73,000 spindles, 5,578 looms and 422 weaving machines of Sung Sing Mill No. 6 in Shanghai, and Mitsui has taken over many other industrial concerns both in the north and south.

There is little hope at present that the Japanese can realize their hope of obtaining vast quantities of capital through unencumbered loans from Wall Street and the City of London, hence their temporary method is now to try to get hold of all available Chinese capital through the Wang Ching-wei regime. They invite the Chinese to join "Sino-Japanese" corporations, in which Chinese subscribe 49% of the shares and Japanese 51%. The joke is this: capitalization of the company is usually arbitrarily raised 100%; the Chinese pay up; the Japanese put in no money at all, yet own 51% of the shares. Not many Chinese have taken advantage of this kind invitation, although those who refuse live under the shadow of the assassin's gun. There are, however, five Sino-Japanese cotton mills (42,328 spindles), three in Shanghai, one in Anhui and one in Hopei.

Realizing that their ruthless policy of confiscation has made Sino-Japanese cooperation impossible, on March 18, 1940, General Toshizo Nishio announced a new policy of returning seized property and it was reported that 100 coal mines, power plants, cotton

and flour mills, etc., in the north were being released to the Peking Government. It turned out, however, that these small enterprises were a liability to the Japanese Army, and General Nishio's proclamation did not include plants under either the North China or Central China Development Companies and their thirty subsidiaries—the concerns granted wholesale exploitation rights. Sino-Japanese industrial cooperation is still a mirage, therefore.

Japan has long wanted to control the textile industry in China, as well as the source of raw materials. During hostilities the Japanese seized some 47 Chinese-owned cotton mills representing 1,498,098 spindles, 107,618 doublers and 16,366 looms. The first Japanese cotton mill was opened in Shanghai in 1900 by Nagai Wata Kaisha, and before the war the Japanese had already established or purchased about 50% of the total spindlage in China, including 49 large mills, 32 being in Shanghai. During hostilities about 700,000 Japanese spindles are said to have been destroyed, including nine mills in Tsingtao and two in Shanghai. In 1939, it was reported that they intended to install 900,000 spindles in Shanghai mills. At that time 25 of the original 32 mills were operating, the products being dumped in occupied areas at prices much cheaper than those of Chinese mills. Some idle machinery has been transported from Osaka to Tsingtao and Shanghai. There is a Japanese Cotton Production and Distribution Control Commission which manages the cotton business—very inefficiently. The Army charges such a number of high "protection taxes" for cotton in transit that a *picul* of cotton transported from Nantung-chow to Shanghai which formerly cost about \$3, now costs as much as \$18. In 1938 90% of North China's raw cotton was exported to Japanese mills valued at \$100,000,000. In 1939 *China's total cotton export dropped to \$8,700,000*. The guerrillas in the north exulted at this defeat of Japan's plan to supply her raw cotton needs from China.

In spite of these confiscations, Japan's industrial program is still very unsettled. Even if she dared build new industry in Chinese cities where it may eventually be taken over by "Red" Chinese factory workers or a Chinese comeback, there are other complications at home. Such industry would compete with the great textile mills of Nippon, and would depress wages in Japan greatly to meet production costs in China. It would, in fact, make necessary greater machine mass production thereby displacing labor. "Red"—a Japanese synonym for "hungry"—factory-workers at home will not be pleased, even if Mitsui interests are placated by sharing in the venture. (Nor will labor and industry

in America and Europe be delighted to have the world market flooded with Japanese goods even cheaper than in the past.)

Still another problem arises from the Japanese factories in Korea and Manchuria—and the Kwantung army—they want China for a market, too. They want a Japan-Manchukuo-Korea bloc as the Empire's industrial base and China as a harmless agrarian colony and source of raw materials.

Japan's principal economic problem is how to balance her industrial structure, formerly top-heavy with light industry, and now bottom-heavy with munitions plants. The light industrialists were not keen to launch the full-size "China Incident" at first. They only wanted North China as a source of cotton and wool. They needed peace in the Orient to sell their goods overseas. The Army has helped them, however, by destroying Chinese competition and selling their goods through military transport on the coast and up the Yangtze and by troop train overland.

The short-lived war cabinets of Japan cannot agree on a program for China, but in general the plan, laid out in 1935, is to build a new heavy industrial base in Korea and Manchuria and to strengthen home industry by monopoly of China's market and raw materials. This "Japan-Manchukuo-China Economic Bloc" (Korea rates as part of Japan only in official terminology) is intended to make Japan the strongest imperialist power on earth eventually, and to serve as the base for future economic and military conquests.

What is China doing in economic self-defense against this gigantic plan? China's strategy has two phases—in the occupied and unoccupied areas, respectively—both based upon prolonged resistance in a war of attrition, and neither having as yet a strong industrial defense line.

In the occupied areas, where all effective work behind the Japanese lines has been under the direction of the Chinese Communists, the strategy is to organize the people for active partisan warfare and passive anti-Japanese non-cooperation so that the invader will be unable to consolidate these regions, either militarily or economically. In the provinces of Hopei, Chahar, Shansi and Shantung, the Eighth Route Army (18th Army Corps) of some 500,000 troops and guerrillas are scattered in small mobile units, trying to build up this base of permanent resistance in the population. In the meantime they harry the Japanese lines of transportation and communication and prevent local puppet governments from being established. By such partisan tactics, and by trying to establish local village self-sufficiency, they hope to prevent Japan from exploiting the resources, markets or agricultural raw materials,

and from realizing any kind of Sino-Japanese cooperation. Because they have practically no industry in these backward northern provinces, their supplies are very inadequate. They have had no high-explosives for demolition work and only a few small arsenals. Military supplies have to be imported from the rear at great expense. A hand grenade manufactured for fifty cents costs \$2.00 by the time it has arrived in Shansi, which is nearest the rear base of supplies. Millions of flood and war refugees render the economic situation desperate.

More important in the long view is the fact that no boycott of the Japanese goods flooding the areas is possible—none other is available. A picture of the situation in Shansi, which province has put up the best military resistance of any in the war, is given by Mr. Meng Yung-chien, Inspector of the Chinese Industrial Cooperatives for the Guerrilla Areas:

"It is clear that the C.I.C.'s task in these areas is not merely the setting up of cooperatives, but the combating of Japanese economic penetration and helping the army and guerrilla forces to attain a certain state of economic self-sufficiency. One of the distinguishing characteristics of the Japanese 'mopping-up' movements in Shansi since last July, I was told, is that wherever they go, they try to destroy systematically every kind of means of production, even to the most primitive ones. At the same time they try to dump certain kinds of goods, and blockade others. So the sinister economic policy of Japan becomes obvious: they want to undermine the war of resistance from the bottom, they want to break our strength and morale through economic methods. *For want of any alternative source of goods*, Japan's economic offensive in Shansi is showing good signs of success. Under such conditions I was actually advised by a friend that it was hopeless to make clothes, soap, candles and other necessities there, for it is simply impossible to compete with Japanese goods. I think he has not realized the potentialities of our movement, but his warning is a good indication of the need for *immediate* extension of C.I.C. to Southeast Shansi. We must secure the close collaboration of the army, the Government and the people in launching together a counter-offensive on the economic front of production and blockade.

"The seriousness of the situation left in the wake of last summer's floods in south Hopei and Southeast Shansi is well known

... "The fact that these areas and those to which the refugees come are themselves emergency war areas doubles the seriousness of

the situation. Tens of thousands of refugees are a wandering menace to themselves and the troops. Any attention which Army and Government on the spot give them is so much energy diverted from resistance.

"It seems that C.I.C. would be an organization capable of dealing with the refugee problem where nobody else has the time, and we have had a great deal of experience in the work of putting refugees to work in other parts of the country."

Small wonder then, that when the Central Government established the first C.I.C. depot in guerrilla regions, the Eighth Route Army welcomed it as a help. Without industry even a temporary phase of resistance is much hampered.

In the occupied areas of the rich Lower Yangtze Valley, Anhui and Chekiang, the New Fourth Army, under Yeh T'ing and Han Ying, and other troops are attempting a program similar to that in the north, with even greater limitations and less economic defense against Japanese penetration. Along the shifting front of the unoccupied areas, of "Free China" still under the Government, the main economic defensive has been the "scorched earth" policy of burning and destroying economic bases so the Japanese army cannot inherit such facilities for their own benefit. This has caused great hardship to the population, though it has slowed up the enemy advance. The Government once hoped to be able to rebuild a part of its lost industrial base in the cities of the remote West, Southwest and Northwest, but Japan has bombed even Yunnanfu, Chengtu and Lanchow. Today it is clear that only small decentralized village industry is possible on a large scale during wartime, and transportation costs make distribution from big factories problematical even in future peacetime conditions.⁵

Fortunately, the Chinese Government saw the necessity of supporting such a project and organized the Chinese Industrial Cooperatives administration. Hankow and Canton fell three months later, and the entire coast was soon blockaded, so it was too late for maximum efficiency in creating this industrial base. Machinery was salvaged from the doomed cities by Indusco, however, and in spite of increased expense the project got under way. Had the movement been organized a year earlier, it could have developed at tremendous speed. The hundreds of cooperative factories, however, are today the best new economic defense line China has built. The "Indusco Line" is really a formation of three

⁵ See chapter "Industrial Shanghai vs. Free China" for figures on other industry in the interior.

lines. It consists of a Front Line of light mobile industrial units in guerrilla and battle regions; of more substantial factories in the Second Line—some of which have already had to be evacuated; and of more ambitious projects in the Rear Line. Less than 2,000 of the contemplated 30,000 factories had been built by 1940, and of these only a small percentage had been created in the dangerous Front Line regions where they are so desperately needed. This, however, is phenomenal progress in China under any circumstances.

The progress of this movement is in many ways a test case for China, indicating whether economic resources can be developed in time to save the situation and whether political unity and mobilization of labor-power will proceed. A good omen, and one of the most amazing things about the movement to the ordinary observer, is that it has the individual backing of the whole usually divided "Soong Family". Madame Chiang Kai-shek originally sponsored it, upon the recommendation of the British Ambassador, Sir Archibald Clark-Kerr. Dr. H. H. Kung, Finance Minister, is Chairman of the C.I.C. Administration in Chungking and holds the money-strings for the Government appropriation. Madame Sun Yat-sen is Honorary Chairman of the Hongkong Promotion Committee. Madame H. H. Kung gave a loan of \$100,000 and good moral support. Dr. T. V. Soong secured bank loans amounting to Ch. \$1,200,000 (and helped negotiations for a further \$20,000,000) and has joined the International Committee for Chinese Industrial Cooperatives Productive Relief Fund in Hongkong, of which his efficient bank manager, S. J. Chen, is Treasurer. (This Committee of Trustees handles contributions on the revolving fund principle and is a liaison for promotion committees now existing in London, Manchester, Australia, the Philippines, Hawaii, the United States and other countries, as well as in Hongkong, Shanghai and Chengtu. The Bishop of Hongkong, The Right Rev. R. O. Hall, is Chairman, and Dr. Chen Han-seng of the Institute of Pacific Relations, is Secretary. From the time of its formation in June, 1939, to 1940, it handled about \$2,000,000 in private loans and relief contributions.)

One of the most acute problems of China today is how to lay a firm foundation for a democratic political and economic unity that will not only keep the Right and the Left together during the war, but provide a program for reconstruction acceptable to both and prevent future civil wars. Not without special interest on this subject is the attitude of Madame Sun Yat-sen, widow of the Father of the Chinese Revolution, who has held the torch for his Three People's Principles. Not many of the economic measures

of the Kuomintang Government have received her full approval since 1927. Especially does she guard jealously her interpretation of Dr. Sun's Principle of the People's Livelihood. On this subject she wrote recently:

"Although progress in this direction is still inadequate, we see today, in the course of our war of resistance, the beginnings of the realization of Sun Yat-sen's economic ideals. Rents and taxes have in many places been reduced. Waste land has been put to tillage. Our war-time reconstruction is taking place under state auspices, and, *through organizations like the industrial cooperatives, is in some cases organized along democratic lines.* After the war, we look forward to a type of economic development in which all groups of the population will have a share." (Italics added.)⁶

In a radio broadcast made December 10, 1939, appealing for help to the C.I.C., Madame Sun further commented: "I think no social movement in China is more timely and significant than the Chinese Industrial Cooperatives, which stand for human rehabilitation, economic progress, and democratic education."

If the three Soong sisters and their brothers and husbands can reach a modicum of agreement on at least one interpretation of Dr. Sun's Principle of Livelihood, there is considerable hope that the rest of the Chinese population can get together. Madame Sun has always been the Left opposition. Madame Kung has one of the shrewdest business minds modern China has produced which has built her one of the greatest personal fortunes in the country. Madame Chiang takes the patriotic viewpoint tempered with Christianity, and has supported cooperatives in the past partly for the purpose of defeating the Communists at their own game. In commending the Industrial Cooperatives, she stated:

"They do not supplant other forms of industrial endeavor; they merely fill an existing need.

"The shocking inhumanities of the Japanese encompassed, as designed, the deliberate destruction of Chinese workshops and factories, but they did not achieve the enemy's hope that the Chinese people would be impoverished and demoralized and their spirit of resistance crushed . . .

"Confronted with this condition of disruption, the industrial cooperatives came into being as a corrective and a solution and they were adopted to collect and re-employ artisans and available equipment, and so fill the growing needs for materials which could

⁶"After the 'War'", an anniversary message to friends in America, by Soong Ching-ling (Madam Sun Yat-sen).

be manufactured from raw materials in given regions . . .

"As a measure to assist in the solution of the refugee and wounded soldier problems the cooperatives occupy a first place; the difficulty of getting machines and tools to the various centres is great, but it is being surmounted. While cooperatives are springing up in many places, there is room for thousands more if the equipment can be obtained . . .

"Here is an opportunity to aid the Chinese refugees to exploit their own capabilities and their raw materials so that their self-respect may be sustained; so that they can contribute to the production of their own wants; so that the sufferers from Japanese inhumanities may be assisted to respectable citizenship by the human kindness of sympathetic supporters of international justice and honourable dealing."

In April, 1940, the three sisters had a reunion in Chungking and one of their first public acts together was an inspection tour of Indusco workshops. In their triple radio broadcast, Madame Kung's principal point was a commendation of the Industrial Cooperatives.

T. V. Soong and H. H. Kung are bankers of the first caliber. Dr. Soong is always alert to intelligent methods of economic improvement. Dr. Kung has taken a keen personal interest in the Industrial Cooperatives because they fall in line with his long-cherished dream of building up village industry. His comment on the movement in May, 1939, follows:

"When the war began, China mobilized her resources through the creation of two commissions, one for the control of foreign trade, the other for the control of agricultural produce. Through the former, China has been able to keep the flow of trade with her customers in the world market, which in turn contributed its share in maintaining China's financial stability; through the latter, the farmers have been enabled to weather the storm of abnormal conditions, by extending to them credit and storage facilities for their supplies. The wholesome effect of both organizations on the national body politic as a whole cannot be underestimated. It was only due to the efforts of these bodies that China's foreign trade, though crippled by the actions of the enemy, has been kept active and the rural credit has been unbroken and the population escaped the baneful effects of the war.

"For the Industrial plants, however, the Government took little

¹ Written in Chungking, April 22, 1939, and published in *New Defense*, May number 1939.

action until almost a year ago when it fostered the Industrial Co-operatives. It immediately solved four outstanding problems precipitated by Japan's wanton destruction of China's industrial centres. First, it provided a way for China to mobilize its economic and industrial resources so as to increase her power of resistance. Secondly, it created a new basis for China's economic structure by giving rise to domestic industries. Thirdly, it provided work for the refugees who had been thrown out of employment in consequence of the industrial plants having fallen into the hands of the enemy. Fourthly, it helped to salvage and rescue from the threatened areas the machinery and transplant them to the interior where the work could be revived.

"The significance of this movement which the Government can only sponsor and help to develop cannot be over-estimated. It points to a new way to China's industrialization. In the madness of importing new institutions from European countries in the past, China was indiscriminating in her efforts. It was thought what was good for Western countries must be good for China. As industrialization in these countries followed the road of urban growth so in China factories sprang up in large cities followed by the usual migration of rural inhabitants to the city. With the good also came the evil of this system of industrialization which fill the pages of the economic history of the eighteenth century, with the difference that in the European countries the evils crept in gradually throughout the long period of slow growth but in China the evils came wholesale with the indiscriminate importation of the system bag and baggage. But in recent years there has been a gradual awakening to the mistake and, among economists and administrators including the writer, there is a strong feeling that China's industrial development might follow a different road, namely the co-ordination of domestic industries. It is more in keeping with Chinese life and meets more adequately the needs of the situation. This war gives the opportunity for rectifying the mistakes of the past and the industrial cooperative movement will give the impetus. Through this movement not only China's economic resources will be mobilized to off-set the loss in the occupied areas, but also a foundation will be laid for the new economic order of the future, more consonant with Chinese life and free from the evils which inevitably accompany the industrialization of the accepted pattern."

What of the Generalissimo without whose sanction few wheels can turn in China? Wise in the ways of statecraft and military affairs, Chiang Kai-shek's greatest failing as administrator has been inadequate understanding of modern economics. He has depended

too much on military force and too little on basic economic solutions in the multifarious problems that have confronted his government. His sanction of this movement is no less valuable to the cooperatives than to the stability of his own position. It has created new confidence in his ability for constructive leadership, not only in China but abroad. He has repeatedly stressed the importance of production in keeping up both military and civilian morale. In a public speech on the Sixth Anniversary of the New Life Movement he expressed his attitude toward the Industrial Cooperatives:

"Our brethren, whether men or women, should choose some kind of productive work, as farming, gardening, road-building, transportation, or any simple handicraft, and try their best to carry on in one of these spheres. We must promote such a spirit among them, so that work we need during war-time may improve day by day. With this object in view, the Government has organized more than 1,000 Industrial Cooperatives, now engaged in producing daily necessities on a large scale. We hope to further encourage this kind of industrial organization, which is simple to set up and fulfils production requirements in a quick, direct fashion without requiring large amounts of capital."

A delicate and precarious balance of power exists in the Chungking Government today. With the loss of its modern industrial base on the coast, the economic basis of the Central Government has shifted to rest almost entirely on the shoulders of the landlord and peasant of the interior, while political power is divided between these two forces and the army and local militarists. The majority of the personnel from Nanking days remains loyal, except the Wang Ching-wei clique, but many of these politicians are men without a province. The Government is overstaffed with professional politicians which it must support to prevent financial pressure from turning them into unwilling traitors and returning to the coastal regions as puppets for the Japanese.

In the uncertainty and confusion of this critical stage of the war, the capital is jittery and in a state of extreme tension. Feeling their helplessness and superfluity, many of these politicians waver between defeatism and patriotic sacrifice. Their frustration takes the form of desperation, and is often manifested in dog-in-the-manger tyranny and reactionariness. There is no tyrant like the little man conscious of his weakness. Underground cliques try to keep up a net work of control, treading water furiously like a drowning man. This complex situation is reflected in the attitude toward the Industrial Cooperatives. Popular leaders sure of themselves and believing earnestly in the future of their people, give it

support and watch its development with interest, though most of this support has been passive rather than active. Chiang Kai-shek and the Soong family, feeling a new security in the hearts of their countrymen, belong to this category. So do intelligent army commanders and all liberal elements. The opposition has come from the "little men", the underground elements who understand power only in terms of moral and physical terrorism and maintaining the *status quo*. At first they tried a whispering campaign to strangle the movement by labelling it "Red", a very threadbare and over-used stratagem which got nowhere. They could not produce a single Communist after an intensive secret police investigation. Their only victims were a publicity man and the wife of a former banker considered too close to the National Salvationist group. This allayed certain fears and gave the reactionaries the idea of strangling the movement through getting control of it, or of utilizing it for their own benefit. Few new opportunities for squeeze and position exist in Chungking today, and herein lies a danger. So far, however, these attempts have failed ingloriously.

The Industrial Cooperatives are already an important element in China's national life, as a people's movement giving encouragement to progressive tendencies. New pillars of support are needed for the administration of Free China, not to prop up a shaky makeshift on the sands but to build a solid permanent structure. It is apparent to every political-minded observer that this can only be built on a democratic foundation, and no democracy can be created today without some form of the Industrial Revolution—the more democratic, the quicker the building process can go on. It is because they recognized the need for such a new pillar of support, for a healthy, rapid industrial development, that progressive intelligent elements in the Government have sponsored cooperative industry. It is no longer a myth to include China among the nascent democratic nations of the earth, therefore.

The landlord-peasant-militarist balance of power in interior China is a most dangerous mixture, particularly now that it is complicated by millions of refugees and the prospect of disbanded soldiers. How long the peasant can stand the pressure is an ever-present question. A land revolution would mean civil war. An industrial revolution, serving the same purpose in the end as in other countries, would mean revolutionary change without armed force. In fact, it appears at the moment to be the only method of preventing a civil war in China and transforming its agrarian regions into a balanced economy. Nobody has yet come forward with a workable plan for widespread industrialization in the emer-

gency, however, except the Industrial Cooperative sponsors, and if this does not develop in great strides, the economic antagonisms may engulf the countryside in chaos and blood in the middle of its endeavor. Its little factories may lie in dust like so many other monuments of modern China, during her long travail of civil war and foreign invasion.

The creation of new wealth, equitably shared, causes a minimum of disruption. Try to take away one acre of a Chinese landlord's property, however, and you have one of the bloodiest, most uncompromising fights in the history of human relations. Tens of millions have died in this struggle for life and death during China's agrarian cycles, and the process has to begin all over again every few generations. A truce has existed only since 1937.

Now what of the famous Chinese Communists, who have done most of the atomic dividing and sub-dividing in recent years? What do they think about cooperative industry for China?

From a purely mechanical point of view, big capitalist factories with thousands of underpaid workers under one roof are the quickest road to Bolshevism. That was the secret of China's 1927 labor movement. An even quicker short-cut might be imperialist-owned factories as in Russia, or such as Japan might build in China to exploit slave-labor if she had the capital. Communists in other countries usually regard cooperatives as innocuous at best and far beneath their dignity. It makes for bourgeois ideology, for the cooperative worker has no chains to lose and a little world of his own already won.

Chinese Communists, however, are long tempered in the hot furnace of reality. They cannot choose their method by straight-laced theory. They are confronted with an endless combination of factors. Mao Tse-tung does not believe in short-cuts, anyway, and his followers have sacrificed a great number of advantages in order to cooperate with the rest of China on a common democratic program. For one thing, to prevent a rift in the United Front, they have had to stand by and watch all the Russian war supplies go direct to Chiang Kai-shek, few of which find their way back to the ill-equipped 8th Route Army.

It seems inevitable that Kuomintang-Communist relations in China must get worse before they can get better. Recently there have been miniature civil wars and the problem of how to find a common meeting-ground has come to the fore in a very pointed manner. As head of the Chinese Communists, Mao Tse-tung is having a difficult time maintaining his rather one-sided United Front, and he is in need of support from the Right. This policy

has failed in other countries, but the Chinese cling to it tenaciously. It is not easy to see what they get out of it, for the Chungking Government has not tended to heap bounty upon them. This "United Front" has not yet been carried along economic lines, and it is hard to imagine how it can be maintained without a "United Rear", and a form of real economic cooperation. Mao has agreed to compromise with the Kuomintang on the basis of the Three People's Principles and a democratic program, a program which is far from realization. Having no industrial base from which to conduct his own war against Japan and no capital for investment, he needs a practical form of industrialization in his own regions even more than the Kuomintang does. Without such industrialization it is not easy to see how the Communists can continue to support their armies and the millions of war refugees in the occupied areas without reviving the confiscation of property and the land revolution, for the Government gives them very little subsidy. That would certainly mean civil war. The Chinese Reds have never had other than a reasonable democratic program in spite of their ferocious name, and have always had to depend largely on cooperatives at least for distribution. Mao Tse-tung apparently considers industrial Cooperatives valuable and progressive for China generally, and asks only that part of the benefits of a nation-wide movement be extended to his own regions. A traveller to Yenan asked his opinion of this movement and in reply he wrote a letter of commendation to the International Committee in Hongkong, dated September 25, 1939:

"I am in favor of the establishment of many small industries in China by means of cooperatives . . . If it is possible to build this kind of (cooperative) industries in the guerrilla districts of North China, and in the adjacent war regions in the Northwest, the help would be greatly appreciated and warmly welcomed by the Eighth Route Army and my humble self."

The possibility that active "cooperation" between the Kuomintang and the Communists might actually in the future be realized through such a democratic tendency as cooperative industrial development, is a speculation that may well exercise the imaginations of all who wonder when China may fall back into civil war and chaos again. To prevent a split in the hard-won unstable unity of the Chinese, many patriotic Chinese, overseas and at home, missionaries, pacifists, humanitarians and other well-wishers of China, are recommending that a common "cooperative" program be adopted to level the existing barriers and provide a base for a true democratic unification before it is too late. Theoretically it

should be possible to find some formula under which the Chinese can hang together for more than two or three years, though the proof of this contention has not yet been demonstrated these forty years.

But let us get on with the story . . .

II. GENESIS OF THE IDEA

1. SHANGHAI, 1938

The fighting at Shanghai ceased at the end of 1937, but the Chinese part of the city burned for over a month afterward. When the Japanese army, after several weeks, permitted outsiders to view the area, Rewi Alley, Chief Factory Inspector of the Shanghai Municipal Council, was among the first to inspect the ruins. The Chinese industrial base in Greater Shanghai had been intentionally razed to the ground by the Japanese, who were systematically looting and burning or taking over every small Chinese-owned workshop and large factory alike in the whole area. A good deal of usable machinery was being transported to Japan, and whole city lots full of twisted, ruined machinery awaited shipment as scrap iron.

The streets of the International Settlement were so crowded with refugees that a car could hardly get through. Among them were hundreds of thousands of skilled factory workers, as much waste as the ruined machinery.

When statistics were collected, the extent of the damage became even more apparent (and it was still heavier at nearby Wusih where recent industrial growth had been more rapid than in Shanghai). Before hostilities there were 5,525 registered factories in Shanghai, 1,379 being in the foreign-administered International Settlement and 343 in the French Concession, while in the Chinese-administered part of the city there were 2,295 in Nantao and 1,182 in Chapei. Registered workshops numbered 16,851, of which 5,204 were in the Settlement and Concession, 8,311 in Nantao and 2,848 in Chapei.

Nantao and Chapei industries were practically destroyed, and in the Settlement areas north of Soochow Creek (mostly Hongkew), 905 industrial establishments were completely destroyed and over 1,000 were looted or otherwise damaged.

Before hostilities, 3,800 factories and workshops were registered with the Shanghai Municipal Council, excluding those on extra-Settlement roads, whose status was ambiguous. By April, 1938, there were only 1,800 factories operating, *including* all those on extra-Settlement roads, of which 750 were new small factories built

after the war had stopped. The Council had jurisdiction only over the Settlement areas under foreign protection.

Of 32 big Japanese cotton mills, 24 continued operations while a number of Chinese mills were expropriated by them also. Of 31 pre-war Chinese-owned cotton mills, the Chinese were operating only eight, located in the Settlement, as of June, 1939, while ten new ones had been set up, equipped with machinery brought into the Settlement from outside areas.¹

At least 80% of all Shanghai factories and workshops had been destroyed or expropriated by the Japanese at the end of 1937, though a new industrial boom began in the Settlement shortly afterward. Dr. Li Chien-shih of Fudan University estimated that Greater Shanghai's war losses totalled four and a half billion Chinese Dollars. An American estimated the loss of factory buildings and equipment at U.S.\$350,000,000.

Shanghai factories employed 600,000 men and women before the war. In April, 1938, there were only 130,000 industrial workers employed in all of Shanghai. In Tsingtao another 100,000 workers were idle due to the destruction of nine Japanese-owned mills there by Chinese troops. As city after city fell, unemployment and destruction spread. The Shanghai-Wusih region was the heart of Chinese industry. About 70% of China's total modern industrial plant was destroyed, immobilized or taken over by the enemy when this area was occupied. Only a negligible amount of equipment had previously been transferred inland. After the fall of Hankow and Canton, China had lost at least 90% of her modern industrial base. Her two million skilled factory workers were nearly all destitute. In the meantime, Japanese goods flooded the coastal areas and penetrated far inland. No effective boycott was possible. No other products were available. The Chinese were helping to pay for their own conquest.

In the midst of this tragedy and destruction a group of Chinese and foreigners in Shanghai came together to devise ways and means of rebuilding China's industrial base and of permanently and immediately solving the problem of starving refugee labor. The situation plainly called for a new type of factory hidden safely in the vast landscape of the interior. Thus the idea of starting the Industrial Cooperative movement was conceived.

The question of how to industrialize the China interior was agitating the minds of a number of people, but their principal

¹ The Japanese seized the Kiangnan Dock and other waterfront, shipbuilding yards, cement companies, flour mills, soap factories, printing works, silk filatures, chemical works, tobacco factories, alcohol plants and many other industries.

concern was to get the Government to subsidize the removal of big factories from doomed cities to save them from the Japanese and avoid another Shanghai debacle. Why not move the skilled workers and let them set up their own small cooperative industries without delay? Moving the factories would waste millions in view of poor transportation and the dangers of war. It took several weeks of debate before a group of influential people could be gathered to promote the idea, however. Not until Rewi Alley had set the seal of approval on the scheme and worked it out technically would anyone get down to brass tacks. When he marshalled his arguments, the opposition faded into nothingness.

The first tentative meeting of four persons was held on March 19, and on April 3, 1938, eleven persons met to constitute themselves a Preparatory Committee for the Promotion of Industrial Cooperatives in China. The scene was the King Kong Restaurant in Shanghai, the host being Hubert S. Liang. (Nothing ever starts in China except at a dinner party.) Hsu Singloh, the eminent banker, surprised the gathering by announcing immediately that he felt sure the whole group was unanimous in recommending the cooperative method as the only feasible one. The vote was enthusiastic. The only argument forthcoming was over ways and means. The meeting adopted the expression "Industrial Cooperatives", as it was felt that "producers societies" was a vague, unexciting term. Others came forth with bright supplementary notions such as "guerrilla industry" "mobile industrial units," and an "industrial rear-line defense."

Hsu Singloh was elected Chairman. A young British official was elected Secretary, and consented to serve *ex officio* and incognito. Hubert Liang was elected "Convenor and Coordinator," and did not hesitate to accept this post and brave whatever arrows of outrageous fortune the Japanese-infested Settlement might bring his way. It was agreed to keep all names confidential at that time as assassinations and reprisals were frequent against any patriotic activity in Shanghai. The committee had to be very discreet for the Japanese were attempting to terrorize the Chinese and British particularly. It took not a little courage for any Chinese to participate in such a movement, and especially for so prominent an official as Hsu Singloh, dean of the Chinese community in Shanghai and spokesman for the Chinese members of the Municipal Council. He met his death at the hands of the Japanese shortly afterward.

In addition to the above, the King Kong founding group included Lu Kuang-mien, a cooperative organizer of long experience; Rewi Alley, Chief Factory Inspector of the Municipal Council;

Mr. and Mrs. E. Snow, and four Chinese whose names may still not be published for reasons of discretion. Two of them were among the most brilliant young bankers in Shanghai. Another was the head of a national federation of Chinese cultural and literary societies. The fourth was an intelligent and active leader of the Shanghai Federation of Chinese Women's Relief Association. This group was soon joined by Frank Lem and C. F. Wu, engineers of the American-owned Shanghai Power Company, and another of their engineering friends; two American journalists; the wife of a Chinese official; Y.W.C.A. and Y.M.C.A. workers, and several others. Nearly all of the above have now left Shanghai. Mr. E. H. Munson, Secretary of the Y.M.C.A., was Treasurer until his death in 1940. An American doctor connected with rural reconstruction work in China at that time usually sat in on meetings and was most helpful in trying to interest the League of Nations and other bodies.

Members of the Committee were requested to do research into the problem of building up an industrial cooperative system and getting Chinese and foreign support for its development, and a handbook was published describing the need. It was called "Chinese Industrial Cooperative," with the sub-title "For a new Economic Offensive—for Prolonged Resistance—for Productive Relief—for the Salvation of China's Industry—for Victorious Peacetime Reconstruction."

This small committee had set for itself an ambitious task, nothing less than revolutionizing the Chinese economic system and the whole attitude toward war refugee relief. It could find no readymade plan for a type of cooperative organization that would be suitable for the complicated conditions with which it had to deal.² Rural credit and marketing cooperatives had been functioning in China since about 1925, not always successfully, but workmen's producers' societies had never been tried by the Government. Lu Kuang-mien said he had once attempted to apply cooperative principles to a small iron foundry in Shansi but that it had been a miserable failure. J. B. Tayler, the cooperative expert, was in England. The best the committee could do in its handbook was to quote from a volume of C. F. Strickland.

The rock upon which the Committee built its faith was Rewi

² In Nanking Dr. Lewis S. C. Smythe and his students had experimented in rural home industry with the cooperative principle in mind, but the Shanghai group had no information about this at that time. Nanking and most of its factories had gone the way of Shanghai and Wush, and Dr. Smythe was doing relief work there. In 1939 he joined the Induceco work in Chungku.

Alley. Everyone respected his all-round judgment. He was considered one of the best-informed persons in China on Chinese industry generally after many years in city industrial work and study of rural industry as well. When he decided that cooperative industry would work, everybody fell in line without qualms, from bankers to engineers,

To expect a starving refugee industrial worker to provide his own capital for a share in a cooperative was hopeless. Finance had to come from private relief organizations, loans from banks or the Government. At first it was hoped that initial funds could be obtained from the Red Cross, the League of Nations, the International Famine Relief Commission, the Rockefeller rural reconstruction fund, the Christian missions, and other philanthropic groups who had given so much aid to China in the past. After an experiment had succeeded, it was thought that the Government would be more likely to render concrete assistance. Investigation proved, however, that this could not be immediately obtained.

For many weeks the Committee tried fruitlessly to secure guarantees of sufficient support to start the project. Difficulties seemed insurmountable with the limited resources at its command. But one must pay tribute to this group that not one of them gave up the struggle. Nothing worthwhile can be started without a fight in any country, and particularly in China. The Committee believed that their little acorn needed only a small patch of soil and that once it had sprouted, the giant oak would grow spontaneously.

The Committee depended upon Alley and his two engineers and Lu Kwang-mien to draw up the technical plan, and upon the bankers to formulate a scheme for financing it. It was concluded that no private banking loans could be depended upon unless the Chinese Government gave full protection to the project.

There were many dangers to be guarded against. It was plain that the cooperatives could make a profit once they were started, and the duty of the sponsors was to see that no unscrupulous elements got control of the movement for their own benefit. This was the tragedy of the rural credit cooperative societies in China, where fantastic interest rates were charged the poverty-stricken farmers, with squeeze being paid out all along the line.

The Committee had to guard not only against control and unscrupulous exploitation by avaricious bankers, militarists, politicians and other untrustworthy elements; it had also to guard against the movement's becoming involved in politics, which, next to universal squeeze, is the curse of China. It wanted to create something clean and honest and for the benefit of the workers themselves, a

movement that would command the respect and enthusiasm of all the patriotic and disinterested elements in the country and of sympathizers abroad, a project that would enlist support from the best professional and technical talent in China, as well as the enthusiastic confidence of the refugees and workers themselves.

Hsu Singloh volunteered to take up the question with responsible Government officials and bankers in other parts of China and during a trip to Hongkong presented an outline to Dr. T. V. Soong and others. Dr. Soong agreed to try to get League of Nations' support, and sent a cable to Geneva requesting this, but the League has taken no action to this day.

We must pay a word of tribute here to Hsu Singloh for his courage and imagination in supporting an industrial cooperative movement in the interior. Hsu Singloh was manager of the Shanghai Commercial Bank and dean of all the Shanghai bankers. He was the first Chinese to be elected to the Shanghai Municipal Council and had held his seat continuously afterward. The British and other foreigners in Shanghai probably had more respect for him than for any other Chinese in the city. His financial interests were entirely concentrated in Shanghai trade, and ordinarily such bankers cared very little what happened to the rest of the country. It was not conscience, however, but a realistic understanding of the future of Shanghai and all other banking in China that caused him to promote such a progressive measure in the interior. In the autumn of 1938 Mr. Hsu went again to Hongkong where he helped negotiate a loan for \$200,000 from T. V. Soong for the industrial co-operatives. Next morning he took a C.N.A.C. plane to Hankow, carrying with him several plans to interest other bankers and officials in Hankow and Shanghai. As his plane was passing near Macao, the Japanese shot it down in the sea and machine-gunned the passengers to death. His untimely death was a great blow to the industrial cooperative movement.

2. THE FOUNDING OF THE C.I.C. IN HANKOW

Four months had passed before anything concrete was done toward realizing the urgent task of creating the industrial co-operatives. The Committee in Shanghai had drawn up a plan calling for a \$5,000,000 appropriation from the Government and sent one of the young bankers as delegate to Hankow to present it. No news came from him, however, and it was suspected that some one in Hankow was shelving the proposition.

Except for the British Ambassador to China, Sir Archibald Clark-Kerr, it is possible the Chinese Government might never

have organized the project. Most Britishers conversant with the history of British economic life need no argument to prove the value of cooperatives generally. When Sir Archibald read over the plan and studied its application to the vast problem of relief confronting China, he did not hesitate in volunteering to recommend it. He sent the plan to Madame Chiang Kai-shek immediately, at the same time recommending that Alley be called to Hankow to organize the project. Madame Chiang, with her usual despatch and decision, studied the plan, together with her brother-in-law Dr. H. H. Kung, Minister of Finance and head of the Executive Yuan, and within a few days the Government sent a cable to the Ambassador requesting that Alley come to Hankow.

This presented difficulties, as Alley was acting as head of the Industrial Department of the Shanghai Municipal Council and no one was available to take his place. Yet it was necessary that he go to Hankow immediately or the whole plan might fall through. The Ambassador was himself leaving within two or three days and wanted to take Alley along with him. Alley could give only two days notice to the Council, but was released on the Ambassador's personal request.

Alley's arrival at the end of June, 1938, was not greeted with enthusiasm by certain elements in Hankow and he found himself in the middle of a complex situation, with this political clique sabotaging that one. With the support of the Generalissimo's headquarters, Dr. Kung, Mme. Chiang, the British Ambassador and the Shanghai Committee, however, he quietly went about his work. W. H. Donald, the famous Australian advisor, also helped. (For some reason nearly all such Government advisors seem to be either Australians or New Zealanders.)

Alley's first job in Hankow was to help supervise the removal of industrial machinery up the Yangtze in advance of imminent Japanese occupation, at the special request of Madame Chiang. Previously, only a few far-sighted factory-owners had moved their plants from Shanghai and Nanking. Now the Government took active steps in demanding that the Hankow industrialists cooperate; a measure that should have been taken during the first days of the war.

The "Chinese Industrial Cooperatives Movement"³ was organized in Hankow in July and formally inaugurated on August

³ In Chinese the term is *Chung Kuo Kung Yeh Ho Tso Hsieh Hui*—Chinese Industrial Cooperative Association. It is popularly called "Kung Ho" or "Gung Ho" from the two characters meaning "Work Together", which appear in its triangle trademark. In English it is referred to as the "C.I.C. Movement".

5, 1938. Upon Alley's recommendation, the staff was selected. Frank Lem, C. F. Wu and Lu Kuang-mien, founders of the Shanghai Committee were sent for, and K. P. Liu was requested to join. As set up, the administration consisted of Dr. H. H. Kung, Chairman; K. P. Liu, Secretary-General; and Frank Lem, Chief Engineer and head of the Technical Section, with C. F. Wu as his Assistant. Lu Kuang-mien was appointed Director of the Northwest Headquarters. In 1939, Hubert S. Liang, also one of the Shanghai founding fathers, was appointed Associate Secretary-General. Rewi Alley's position was that of Chief advisor and later also Field Secretary for the International Committee in Hongkong.⁴

The "C.I.C.", as it is called in the alphabetical terminology that has infected the world since Roosevelt's New Deal, was an anomaly in Hankow and Chungking in that it remained elastic and independent of the general bureaucratic Government structure. It was placed under the Executive Yuan, of which Dr. Kung was Chairman, and, therefore, Premier of the Government. The \$5,000,000 was appropriated, though only a small amount was made initially available, and the technicians had a constant struggle to secure funds as needed. The movement was largely dependent upon the personal attitude of Dr. Kung who fortunately took an increasingly paternal interest, though it was obliged to rise by its own merits.

Dr. Kung is certainly to be congratulated upon the fact that he has not permitted the C.I.C. to fall into the grasping hands of Chungking politicians. It is today the only active non-party movement in Government circles. It is managed by disinterested technicians, nearly all of whom have made considerable personal sacrifices to further the work.

In August, 1938, Alley and Lu Kuang-mien took a group of refugees and some machinery from Hankow and set out on a long trek to the Northwest, where the first industrial cooperative was organized by Lu Kuang-mien three days after his arrival. Frank Lem and K. P. Liu set off about the same time to organize the Southwest Headquarters in Hunan. Next came the Southwest Headquarters in Kiangsi, followed by two others for Szechuan-Sikong and Yunnan. By early 1940 about 1,600 cooperatives had been created with a registered membership of from 25,000 to 30,000. Statistics are uncertain due to the isolation of many of

⁴ On August 3, 1940, the administration was reorganized into four sections, with K. P. Liu as head of the Business Section; Hubert S. Liang, as head of the Promotion Section; Y. P. Mei (formerly of Yenching University) as head of the Secretariat, and Ning Ku-chung as head of the Finance Section.

the depots, especially in guerrilla areas. In addition to its regular membership, hundreds of piece workers were employed on the army blanket order and other emergency work who could not be incorporated into the movement for lack of capital. Each member and employee supported from two to five dependents.

One of the principal reasons for the success of this movement is the extraordinary quality of the personal pioneering in the work. Because of the integrity of this group of technical men, a large following of enthusiastic supporters has gathered round, such as no other movement has commanded since the war began. Who are these men? Of the 12 important leaders, aside from Dr. Kung and Alley, seven belong to a unique group of American-trained engineers called the "Bailie boys", of whom four are graduates of Michigan University, two of Cincinnati University and one of the University of Chicago.

3. THE PIONEERING "BAILIE BOYS"

There is an interesting story behind the founding of the Chinese Industrial Cooperatives. It is a story of Henry Ford, of an Irish-American Presbyterian missionary and his "Bailie boys", and of the bachelor pair, Alley and Camplin. The threads of this tale are scattered, but pulled together they make up a tradition upon which this new industrial movement happened to be built.

Rewi Alley and Alec B. Camplin kept a bachelor establishment together in Shanghai, caring for their three adopted Chinese sons, Mike, Alen and David. They were both keenly interested in China and learned to read and write the language. Two of their closest Chinese friends were Frank Lem and C. F. Wu, who worked with Camplin at the Shanghai Power Company, where he was one of the chief engineers. Alley would perhaps have had little confidence in the success of the new industrial movement, had it not been backed from the start by Lem and Wu, two of the ablest engineers in China, and had he not hoped for further support from others of the "Bailie boys", such a K. P. Liu, also an old friend. Camplin was then taking a year's home leave in England—he is a native of Dorsetshire—but he received news of the project there and was instrumental in getting promises of good British support. Upon his return to China he followed Lem and Wu in resigning from the Shanghai Power Company to become Honorary Consulting Engineer for Indusoco. He was sent back to England as delegate of the International Committee in Hongkong just as the war in Europe broke out.

As soon as the C.I.C. administration was set up in Hankow,

Dr. Kung and Alley sent for these Ford-trained engineers. It so happens that all four heads of the Administration, K. P. Liu, Frank Lem, C. F. Wu and Hubert S. Liang are members of a group of Christian engineering students educated in the United States known as the "Bailie boys", with a long tradition of friendship behind them. They were soon joined by several others of the group. Of the five Indusco field headquarters, two are also headed by Ford-trained "Bailie boys": C. K. Tan (U. of Cincinnati), Director of the Southeast Headquarters and P. P. Mao (U. of Michigan) of the Yunnan Headquarters. Several other engineers and technicians of this group are to be found in the field, including Charles Wong, (U. of Michigan), engineer of the Southeast Headquarters, and K. H. Liang, head of the machine-shop in the Southwest, as well as former apprentices from the Bailie schools in Shanghai. They once organized a "Bailie Club", of which Hubert Liang was the first Chairman.

It was nearly twenty years ago that the Bailie-Ford experiment was started which indirectly resulted in this amazingly successful attempt to industrialize the backward interior of China. Joseph Bailie was an unusual type of missionary, one of the earliest to believe that applied Christianity meant educating engineers and doctors as well as pastors, and building factories and hospitals as well as churches, in order to solve the bitter problem of poverty and human suffering. He set as his personal aim the training of bright young Chinese students as efficient engineers to take the leadership in creating a new civilization in China, such as the Industrial Revolution and its Protestant counterpart brought to medieval Europe. He thought that if modern industry and Christianity went hand in hand, they could bring about the renaissance of China. None of the spirit of Christianity was to be found in the terrible conditions of Shanghai factories and he believed that his Christian engineers could bring enlightened management. Bailie enlisted the philanthropic support of Henry Ford, who agreed to train Chinese students in his Detroit plant. When Henry Ford supported this intelligent old missionary's idea, he could not have anticipated that his disciples would one day be pioneers in rebuilding a war-torn continent along the lines of his own recently-advocated plan for "decentralized industry". When Joseph Bailie conceived the undertaking, he may have hoped for such a development, but he did not live to see it realized. He contracted cancer and committed suicide in 1935, feeling dissatisfied with his life's work of 70 years. Today, however, his students have fulfilled all the dreams that Dr. Bailie might ever have had for them, and their

work is moving fast toward more ambitious achievements. They did not reform Shanghai factory conditions, but they have given new life to thousands of poor people and new hope and confidence to a whole nation.

It was in the 1920's that Dr. Bailie first selected a number of promising young students to help through engineering courses at the Ford Motor Works. A special training school was established for them, and Ford agreed to take in a hundred. In the beginning there were not many candidates. Chinese students usually prefer law and political science. They do not fancy soiling their hands with machinery. Once started, however, the scheme attracted more applicants than Ford could handle. Bailie gave his pupil, K. P. Liu, responsibility for supervising and selecting the recruits, which position he held until 1925 when Frank Lem took over the post. (These are our No. 1 friends of Indusco.) Liu had just been graduated from the University of Cincinnati before taking his Ford training, and Lem was fresh out of the University of Michigan.

In the meantime, Bailie had returned to Shanghai where he launched a crusade against the incredible factory conditions. He convinced several factory owners that technical education was just as important in making profits as squeezing labor, and they agreed to finance training schools. It was for the purpose of managing these schools that Bailie called K. P. Liu back from Detroit in 1925. When Liu went to Manchuria later, Frank Lem was asked to return to carry on the work. Lem had a good job in Detroit, but he gave it up willingly to help the Bailie crusade at a salary of \$120 a month. Not until ten years later do we find this pair working together again. In 1938 Liu and Lem went together to Hunan to organize the Southwest Indusco Headquarters.

During the period of great labor stress in Shanghai, Bailie's schools were closed down, though they had trained hundreds of apprentices during their existence. Lem then took a job with the Shanghai Power Company, where his unusual ability soon won him one of the top-flight engineering positions. He was the first Chinese to be given a post formerly held only by an European.

C. F. Wu followed closely in the successive footsteps of his friends Liu and Lem. He was graduated from the University of Michigan as a mechanical engineer four years after Lem, then received practical training at the Ford plant. Dr. Bailie also called him back to Shanghai to help with the schools. When these closed down, he started his own garage business. Presently, however, he secured a good engineering job at the Shanghai Power Company,

with his pal Lem.

Hubert S. Liang, after a year and a half at the Ford school, had given up his first love, engineering, in favor of journalism and public relations work. He became Dean of the Department of Journalism of Yenching University in Peking, an American missionary school.

It began to look as if the Bailie boys had gone the way of all American-returnd students. They all married and had children to send through college one day. They all had fat jobs, three of them in American-owned and operated institutions, living in fine American style. K. P. Liu had become a high government official over the thirty million inhabitants of Manchuria. He was connected with the Finance Department of Chang Hsueh-liang's Mukden Government and head of the Manufacturers' Bank.

Came the Japanese invasion. This first affected K. P. Liu when the Japanese took over Manchuria in 1931. This six-foot handsome son of prosperous Manchurian pioneers was exiled from his native province. He went to Shanghai where his engineering qualifications secured him a leading position on the Whangpoo Conservancy Board. Not satisfied with this routine, easy job, even though it was well paid, Liu got together with his old friend Joseph Bailie and the two of them went to the interior to do more basic work in the reconstruction of China. Dr. Kung gave Liu an appointment as magistrate of Hohsien in Anhui Province, and within two years this county became famous as one of the three or four model districts in all China. The government administration was cleaned up, agriculture was improved, reforestation instituted and other reforms pushed through. (Ralph Lapwood of Medhurst College in Shanghai, a school in which Alley was also interested, used to take his students to Hohsien to do rural work during summer vacations. He is now assisting Alley as advisor to the Industrial Cooperatives. Some of these students are now C.I.C. depot masters, "carrying responsibility and getting results," Alley comments.)

Before Liu's arrival, Hohsien had been notorious as one of the worst-ruled counties on the Yangtze. Liu dismissed all unscrupulous tax-collectors and corrupt officials, and purified the county of opium and gambling. He won the hearts of the local villagers and when the Chinese Government promoted him to the post of Commissioner of Civil Affairs for Kansu Province, the peasants came in a delegation and begged him on their knees to stay with them. He promised to find a good successor and chose another Ford man for the post. When the war with Japan broke out, Liu

went back to Anhui and was in the middle of organizing peasant self-defense units and guerrilla activities when he was requested to give up this work to join the Industrial Cooperatives. He had then about 40,000 villagers in training and it was not easy for him to give up this exciting and important activity, but he saw clearly the value of cooperative industry in the future economic and military life of the country and decided to accept the appointment.

Now we return to the devastated Shanghai scene of 1938. It was not a pleasant sight for the Bailie boys. How could China put up prolonged resistance with no industrial base? The situation roused new patriotic and engineering instincts in many a Chinese. Even Hubert Liang, who had forsaken the engineering profession, decided to turn back to industrial work again.

There was a Bailie boys reunion in Shanghai. Liang and Lem and Wu took a leading part in organizing the Industrial Cooperatives promotion committee. The memory of Joseph Bailie was not dead. Besides, there was that more dynamic and practical friend, who had known and worked with Bailie and his students since the days of their experiment in apprentice training schools. This was Alley, who had done more concrete work in improving factory conditions in Shanghai than any other individual. When Alley agreed to work for the cooperatives, Lem and Wu volunteered to give up their highly-paid jobs and go to the interior to pursue this dangerous work. Both are very devoted to their families, but had to leave their wives and small children behind. Liang went on a lecture tour abroad, where he acquainted his audiences with the Industrial Cooperative movement.

All of the above Bailie boys are imbued with a broad social consciousness. All happen to be Christians, with strong moral principles and a humanitarian, progressive outlook. Lem is considered the best church-goer of the lot, but one recognizes the Christian influence in the thinking of all them. Hubert Liang was General Secretary of the National Committee of the Y.M.C.A. in 1928 and worked with the Y. for several years, lecturing at summer schools and conventions.

What kind of individuals are the founders of this movement? They are the most Americanized Chinese one could imagine, frank and open in manner, friendly and democratic. They like American slang and American food and American clothes and American methods. Yet they must live in medieval style like the majority of their countrymen. Adapting themselves to village conditions in China was as great a transition as for any Westerner. Fortunately, their education did not take the academic mould and every one of

them has the genius for improvisation so indispensable in their present work. Lem and Wu have devised every kind of makeshift from charcoal-burning engines to bath showers made of Standard Oil tins.

K. P. Liu, the Secretary-general, is an honest, forthright individual, like many sons of Manchuria. He is inclined to be high-tempered and impatient with inefficiency and roundabout methods. This is not in accord with the ultra-diplomatic underground tradition of Chinese politics, and Liu sometimes rubs the slick politicians the wrong way. He made it clear at the outset that no bribery or inducement would be given to any opportunist elements in the capital and after squelching several overtures unceremoniously he was left severely alone by seekers for squeeze and position. This is a difficult battlefield to hold in China, but Liu seems to have done very well indeed so far in his constant skirmishes. All his past activities as engineer, teacher, banker, soldier, and administrator make him peculiarly well qualified to head a new movement requiring all-round efficiency and knowledge of many phases of life. Another important qualification is that, like the other Bailie boys, he is non-political and not connected with any clique or party. This has made his post a difficult one in a capital ridden with intrigue, but it serves to win the support of disinterested friends and followers.

Lem and Wu are two of the most delightful persons you could meet in any country. Both are rather quiet, well-mannered and modest, but underneath this unassuming exterior you feel the spark-plugs running at top-speed. They have despaired a hundred times at the backwardness, the stupidity, the endless complications and obstacles confronting their work. But they keep putting their battered chins up for more. Both have been sick with dysentery and fever. (K. P. Liu and Alley have also had serious cases of typhoid fever.) Both have narrowly escaped death in bombing raids. Lem was once shot at by soldiers while salvaging machinery in Hunan, and was in constant danger from local bandits. Wu has ruined his digestive apparatus from poor food and overwork and is in miserable health as a result.

The No. 1 spark-plug in the engineering machine in the field is Chief Engineer Frank Lem (Lem Su-yi). Alley and Bailie always had a standard word for him. They called him a "jewel." This particular jewel bears the brunt of much of the clock-work that makes Indusco wheels go round. Lem is a Cantonese, born in T'ak Shan, Kwangtung, in 1898. His grandparents were farmers, but his father was a school teacher. At the age of 15 he

went to the States to finish high school. He did not learn English until after reaching America. Lem studied in three universities, receiving the degrees of B.A., B.Sc., and D.Sc. He studied four years at Toronto University, three at New York University and one at Michigan, and received his practical experience at the Ford plant. Lem met Joseph Bailie in Detroit in 1924.

Hubert Liang is a hearty type of person, with an immense quantity of explosive energy and overflowing good health and spirits. He is one of the most optimistic believers in the future of his country extant. After listening to his pronouncement on Sino-Japanese affairs, you wonder how anybody could raise any question as to the "ultimate victory." He is a shrewd commentator on political matters, however, and little escapes his nose for news and eye for what is going on. His superb confidence is based on a belief in the unexplored potentialities of his country, however, and not on present phenomena. This existent fact nobody can deny. The question is only how soon such potentialities are going to be explored. Liang sees cooperative industry as one of the vital steps in this direction, and for this reason is bending his indefatigable energies toward helping the growth of Indusco. His versatile abilities and broad experience make him a good team-mate for the technical staff.

Liang (Liang Shih-shun is his Chinese name) was born in Nanchang, Kiangsi, in 1903. He studied at Government and mission schools, then entered William Nast College in 1916. He also attended Baldwin-Wallace College (Ohio), Depauw University (Indiana) and the University of Chicago. After finishing his Ford engineering course, he worked on the *Detroit News* from 1926 to 1928, continuing to act as their special correspondent after his return to China, as well as for the *Christian Science Monitor* and *Time Magazine*. As National Y.M.C.A. Secretary and special delegate to various conventions, he has made several trips to Europe and America. Liang gave up his post at Yenching University when the war broke out and went to Shanghai where he was very active organizing educational, civil and cultural groups in support of resistance. The original Indusco committee was very largely the result of his efforts, and he was one of the first to sponsor the movement. As a result of his travels in 1938-39 to the United States, England, Scandinavia and the European continent, many groups and influential individuals became interested in assisting the Industrial Cooperative work. Upon his return to China, Liang immediately went on an inspection tour of the Industrial Cooperative areas with Rewi Alley. In Paochi they were rudely thrown

out of their beds by a Japanese bomb which landed a few yards away. Liang was nevertheless much impressed with the progress of the movement that had been only an idea when he left China in 1938, and accepted the post of Associate Secretary-general upon his return to Chungking.

Dr. Bailie was the key influence in the lives of most of the "Bailie boys". Alley says that Frank Lem and C. F. Wu "both speak of him with reverence as the guiding force of their lives." His friendship also had a considerable influence upon Alley himself, who inherited his mantle of moral authority. In honor of his memory the "Bailie boys" and Alley are starting a "Joseph Bailie Memorial Industrial Cooperative Technical Training School" for poor apprentices, in the old tradition. In appealing for Ch. \$70,000 to found the school, Alley recently wrote the following in a letter:

"Joseph Bailie was an American of Ulster extraction. He came to China as a young missionary and was in the Boxer Siege of Peking.

"He started the School of Agriculture and Forestry in Nanking University, and struggled hard for the idea of bringing into the China he knew some conception of the dignity of labour. He fought a lifelong fight against the prevailing conception of what the gentry and the student in China ought to do. (He made them plant trees—his were probably the first on Purple Mountain outside Nanking since Ming times.) He spent his private money in getting them into jobs in the USA after they had graduated so that they would be able to come back to China with something other than an ability to wear western clothing nicely. He found a sympathiser in Henry Ford, who took many of his graduates into his works and gave them years of practical work. At the same time the old man gave them the benefit of his life's work in China—always telling them, exhorting them and praying them not to be small minded officials, grabbing after the family fortunes and seeking to enlarge them, but to do things so that they and China would be able to stand on their feet—despise charity, and identify themselves with their struggling fellows.

"I visited him first in 1928 in the little bare attic in a gaunt Boone Road house in Shanghai, and caught some of his spirit—so different from the spirit of the Messroom in Shanghai, or the Club. Through his influence, I spent my first summer holiday in Suiyuan with the China International Famine Relief.

"Old Man Bailie, as he was affectionately called, during one of these visits brought in a little Cantonese. 'He is a jewel' the old man said aside. It was Frank Lem, now Chief Engineer of the

C.I.C., who had come to take over the Technical Training Class the old man was running for poor apprentices in Shanghai factories. The school trained an equal number of orphans who went to the factories and took over time thus releasing other boys who had some months in School. Today the C.I.C. has several of them working as technicians in its force, and good men they are . . .

"His life in China was a full and varied one. Everything he made in the way of money he spent on the people he worked amongst. His was a furious, independent spirit. Furious against corruption, full of love and understanding for those who did the work of the world. Once Henry Ford was sending him a tractor for a Chinese colonization scheme he was working on in Kirin Province—settling Shantung refugees of famine on waste lands. But the Japanese sent hired thugs, took the old man from his house and beat him nearly to death, before it arrived. Such is the fate of him who does. He worked on famines and on floods in many a province—in Shantung, in Hupeh, Shansi and Hopei. He built monuments to himself in the lives of many a man who is today struggling to make China a better place. Intensely practical, the idea of the C.I.C. would have appealed to him immensely. The way his 'Bailie boys' as they call themselves have flocked to the C.I.C. shows that . . .

"He has been dead for four years now, but his spirit will live on longer—for the things that he taught are things that must be done, and without his spirit their doing is not possible.

"Joseph Bailie was not a trained engineer. But he was a man who could see first things first. He loved making things—in creating—reconstructing. His last effort was his nursery for trees in his Hohsien garden, of which he was tenderly proud. He was a great American, standing out as a giant in this twilight where we grope so feebly and do so few of the things we are capable of doing."

4. REWI ALLEY

In May of 1939, the Royal Academy in London accepted a fine bust of a rugged Irish and English pioneer type from the hands of the well-known New Zealand sculptor, Francis Shurrock. Rewi Alley, the subject, was much surprised to find himself immortalized in bronze. He says the only claim to fame he can make in New Zealand is that of being older brother to the noted International Rugby Football star. On his visits home the commonest question fired at him is "Any relation to the All-Black?" (This young brother is now head of the Labor Government's attempt at better

rural education through setting up the New Zealand Country Library Service.)

In China, however, "Ai-li" has long since created a permanent niche for himself in the hearts of hundreds of wounded soldiers, boy orphans and apprentices, famine and war refugees and Shanghai factory workers. As Chief Advisor and Field Secretary for the Chinese Industrial Cooperatives, travelling constantly back and forth across the continent, he is now beloved by thousands more, not to speak of many admiring followers of other nationalities now enthusiastically supporting this movement partly because of faith in the integrity and efficiency of this remarkable individual.

The writer first met Alley at the end of the Shanghai war in 1937, while the city was still burning. He took me to see a wounded Boy Scout, one of his many proteges, followed by a visit to a hospital for wounded soldiers. They set up a shout of welcome as soon as he appeared. He took their pictures to send home to the folks, waiting patiently while they pathetically tried to hide the limp places where arms and legs had once been. In November a year later, when Alley was setting up the Indusco Southeast Headquarters in Kiangsi, he came upon a group of disabled derelicts, and received that same shout: "Find that those wounded soldiers from our Shanghai Hospital are all in Kian. And do they want to start a coop too. Right after me. Have some plans, which I hope will work out . . . Getting a man to teach them cigarette making. I kind of stumbled on them all there, and met with the welcome of my life. They simply mobbed me, poor beggars. They had already decided to stay and be killed rather than go back to any other place," he wrote in a letter to a friend. Thus started the first important attempt to rehabilitate disabled soldiers and restore them to civilian life.

During his inspection trips Alley observed hundreds of lightly wounded soldiers dying of cold following malaria, dysentery, etc. along the roads, wrapped only in thin cotton shoddy blankets imported from India. He proposed that Indusco be given an order to make woollen blankets, the first attempt to provide Chinese troops with woollen articles, while Japanese soldiers are always clad in wool bought from Northwest China. Four hundred thousand were manufactured in record time, and a further order for 1,500,000 followed.

What is the background of this humanitarian individual so busy risking his life in dangerous work that he never takes time to tell about any of his personal adventures? He likes to stay out of the limelight and any kind of personal praise makes him highly

uncomfortable. His method of trying to get along in China is to do as much of the hardest field work as possible and give all the face to his associates.

Alley was born in Springfield, Canterbury, New Zealand, on December 2, 1897, of one of the oldest pioneer families; his father of Irish and his mother of English descent, with a Puritan ancestry. His parents rather quaintly named him "Rewi" from the famous Maori chieftain of early days who fought for independence against the Red Coats. His father, a schoolmaster, was long an advocate of cooperation in agriculture and wrote on this and educational problems—so Rewi had an early background in cooperative principles. The mother of the family of seven was one of the first, and is now the only surviving member, of the group of women who fought for and gained woman's suffrage in New Zealand. Her oldest son was wounded at Gallipoli and later killed leading the first New Zealand trench raid in France in 1916. Young Rewi finished school that same year and followed to France with the 1st Canterbury Infantry Regiment. He was wounded twice and received a high decoration for gallantry in action.

Invalided home in 1919, Alley says he "took up a 'backblock' bush section of two thousand acres in Taranaki Province, N. Z., and went through the depression in coarse wool, that ruined so many of New Zealand's farmers in the years 1921-6. But it was a very valuable experience to hew and to build and to know what labour was—and to regain some sanity after the insanity of war. Worked harder and with less clothing than many a Chinese street worker in Shanghai."

Alley's alert mind and adventurous spirit were not satisfied with sheepfarming, so in 1926 he left his share of the ranch to his partner and decided to go to China to "see what the new revolution was all about." In Sydney he took a job as a wireless man on a tramp steamer that collected indentured Cantonese workers from the Phosphate islands of Naru and Ocean Island, and signed off at Hongkong. This was his first contact with Chinese labor, which he came to know so well later. He arrived in Shanghai in the midst of the most exciting period in that city's history—the spring of 1927 when the Kuomintang Revolution and Shanghai's labor war was at its height. He secured a position with the Shanghai Municipal Council, first as Factory Inspector for the Shanghai Fire Brigade and later as Chief Factory Inspector of the Council's Industrial Department when it was created. This position he resigned in June, 1938, to join the Chinese Industrial Cooperatives Administration in Hankow.

During this period of daily factory inspection he came to know China's labor and industrial problem inside out. As he comments, "Inspection of the Shanghai International Settlement's 4,700 factories and workshops (pre-war) brought the conviction that a better method was possible, and two years with the C.I.C. has shown that it is."

Alley was plunged into contact with factory conditions that put to shame the stories of the early Industrial Revolution in England. He put tremendous energy into attempts at reform and factory safety, and was called upon to mediate strikes and labor troubles. The situation was hopeless but his name was known and respected by every owner and laborer in the Settlement, as well as by hundreds of plain workers and victims of industrial accidents whom he helped to secure fairness and compensation.

In 1928-29 Alley spent his leave assisting the Suiyuan famine relief work, and again during the great Yangtze flood of 1931 was released from the Council to help in the building of dykes and rehabilitation of refugees. In 1937 he spent his year's leave inspecting factories in the United States, England and the continent for information regarding factory safety and workers' welfare.

During each of his famine relief years he adopted a Chinese orphan, and made an amazing success of this experiment, caring devotedly for his sons "Michael and Alan" in his bachelor establishment in Shanghai. The oldest, Alan, became President of his class at fashionable St. John's University in Shanghai. "Mike" is now assisting his foster-father in the Industrial Cooperatives. Mike and Alan are two of the main reasons for Alley's faith in the common people of China.

Most of Alley's summer-holidays were spent on walking trips through the interior, during which he investigated rural industry in nearly every province, publishing articles and pamphlets on the subject. On other vacations, he studied the life of overseas Chinese and wrote up his experiences. (He has a definite literary gift, incidentally, inherited from his father.) Some of the subjects of his illustrated pamphlets are: The Rural Cotton Industry in China, China's Rural Paper Industry, A Youth Epic, Rural life in Suiyuan Province, the Scene of Present Hostilities and Country Children of Southern Kiangsu. He has also published several studies of Shanghai factory conditions, such as "Lead and Antimony in Shanghai Industry", prepared together with Dr. Platt for the Lester Research Institute.

Unlike most Shanghaianders, Alley took a keen interest in China, and learned to read and write the language as well as to speak

fluently in several dialects. He seems really to like the Chinese people and to sympathize with all their trials and problems. He had helped a continuous string of poor Chinese students through school, and his house in Shanghai was always overflowing with Boy Scouts planning expeditions and experiments.

Francis Shurrock had an artist's perception of strength when he modelled the clean-cut, determined profile of this scion of pioneers, but he could not have caught the intensely honest blue eyes under that informal scruff of sandy hair, and the moral and intellectual energy of his subject. Alley is a Puritan of the old pilgrim type that has always conquered new worlds and won disciples. Furious against corruption and selfishness, he has infinite patience with the underprivileged class whose lot he has tried to improve for so many years. He has the soft-hearted Irishman's sympathy for the underdog and a soul of generosity and kindness. Serious-minded, studious and quiet, he is quick to rise to the defense of anything he believes in, and he guards his infant cooperative industry like a bulldog. He has been its guiding genius from the first moment, ably supported by his first-rate Chinese engineering friends and recently by several other foreign cooperative experts of whom more will be said later.

In appearance Alley is the athletic type—stocky, with powerful muscles and exuberant good health. He is built almost four-square and seems immovable. This natural strength has been an invaluable asset to him in his present work, which requires living a "coolie" life. He seems as indefatigable as a steam engine. Constantly surrounded by air raids, banditry and exigencies of front-line war conditions, his life is the worry of all his friends.

The amount of difficult and dangerous travelling this man has done in the past two years is fantastic. His experiences and observations of wartime conditions in the interior would make a fascinating book. He has been obliged to walk for days to isolated regions. He has worn out several bicycles. He has bounced about on carts and trucks, and spent whole days in overcrowded suffocating buses. Occasionally he has been lucky enough to get a plane ride, which one must book several weeks or even months in advance. "But waiting in filthy inns is the worst thing," he says. "The rats carry off my soap, eat my shoes and clothes and papers." As soon as he arrived in Hankow and tried to force some factory-owners to remove their machinery to Chungking, one of them tried to start the story that he was a "spy"—for whom the kind gentleman could not say. During his investigation of the provinces, he has often been accused by stupid officials of "spying for the

Japanese." All these things Alley takes as part of the day's work. They are inevitable accompaniments to the pioneer's career in any progressive movement and particularly in China. No label ever sticks. As soon as anyone learns to know Mr. "Ai-li", all prejudices fall into the mud where they belong. It is practically impossible to criticize such a man, honestly or dishonestly. The worst I have ever heard any one say of him is that he has a fiery Irish temper and is too impatient with corruption and inertia, and that he does not give big dinner parties for government officials.

It is impossible even to follow Alley's travels by mail. The criticism his supporters make is that he moves about so fast that he can never be reached and a series of carbon copies must be sent out in every direction. It makes one dizzy even to look back on his itinerary and the varied amount of work he has done during the past three years. He spent a year's home leave investigating factories in England, the United States and Europe for information regarding factory safety and workers' welfare, returning at the end of 1937 to plunge into the chaotic industrial situation during the war in Shanghai. During this round the world trip he collected much interesting material also on the life and economic activities of overseas Chinese, which he published in a series of illustrated pamphlets early in 1938. These included studies of the Chinese in Australia and New Zealand, Fiji, Samoa, Hawaii, the United States, England and France.

In late June, 1938, he took a plane to Hankow with the British Ambassador where he organized the Industrial Cooperative headquarters and assisted in arranging the removal of industry up the Yangtze. In August he and Lu Kwang-mien took a thousand refugees and some machinery by train to the far Northwest, where they set up the Northwest Headquarters.

In September he returned to Hankow from where he took a plane to Hongkong to negotiate a loan for \$200,000 from Dr. T. V. Soong and to recruit technicians and purchase machinery. He took the much-bombed and delayed train out of Canton in October shortly before its occupation by the Japanese, arriving in Kiangsi to found the Southeast Headquarters. There he was caught without even personal travelling expenses. The Hankow office had borrowed \$700 of his own money and his salary had not been paid since July (it was not paid until January.) Communications were disrupted due to the fall of Hankow and Canton and only when a contribution of \$20,000 arrived from the Philippines was he able to start work. From October to the middle of December he organized depots in this region, personally investigating local re-

sources and laying plans for work in Fukien and Chekiang as well. He had to pedal a bicycle in the rain for three days, among other pleasant experiences. On his way to Chekiang province, a dangerous journey near the Japanese lines, he was thrown out of a bus in an accident and twisted his arm. At Nanchang he was obliged to stay in a wrecked hotel, where the windows had been blown out the day before by bombing.

Leaving Kiangsi he went to Hunan and Kwangsi (where he met provincial officials and laid the foundation for Indusco work). At the end of December he went by air from Kweilin to Chungking. "At Kweilin the Japanese came over just after our plane got into the clouds and blew the place to pieces. It is a pretty sorry wreck," he reported.

January of 1939 found the indefatigable traveller back in the Northwest, going from village to village to inspect what had been done since his first visit. He was vastly proud and pleased and promulgated grand plans for expansion. In Swangshihpoo he was nearly asphyxiated from a charcoal brazier while sleeping in a room inadvertently closed tight. He was unable to see or move for a whole day afterward. During this trip he went to North Shensi to found an Indusco depot in that complicated region.

Back to Chungking then, and on to see what had happened to his pet project in Kiangsi. In April he personally set up new depots in Fukien, Chekiang and Anhui, after a hazardous trip to the Yangtze region, mostly Japanese-occupied territory. Anhui is 700 miles from the Southeast Headquarters, in the heart of the fighting zone.

Came disaster. For six weeks during May and June he was seriously ill with typhoid in Kiangsi at a time when furious Japanese bombing started. Every day during the June air raids, he had to be carried out to the country from his quarters in the gasoline store. The cooperatives had to be evacuated from the city at the same time, and everyone was very busy but he received the best attention possible. The Hongkong Committee sent a doctor to bring him back to civilization by plane, but he stayed in Hongkong only a few days and would not take the doctor's advice to recuperate for several weeks and take care of a dangerously enlarged spleen, with which he still suffers.

Alley wanted to be back in Chungking for the first C.I.C. Conference on July 19, which was held up for his arrival. On August 4, still weak and ill, he left for a rough trip to the Sungpan region to organize wool-buying for his pet army blanket project, to the dismay of his friends. He set up the Sikong depot for

Tibetan tribesmen to spin and weave wool in the meantime.

And so on—back to Chengtu and Chungking at the end of 1939 and a return to the Northwest in January, where he and Hubert Liang were thrown out of their beds in Lanchow by a 200-pound bomb that landed next door. Spring found him touring the provinces of the Southeast again. Then back to Chungking, where he attended the Second Annual Conference of the C.I.C. on July 7.

Alley's field reports are a mine of general information. He finds oil-croppings, gold-veins, coal mines, investigates local industry and refugee conditions, improvises machine-processes. He works quickly and builds for the future, hoping to expand rapidly enough to meet all emergencies. His favorite slogan is "A few cooperatives cannot stand—thousands can."

Possibly no other foreigner has ever before participated so closely in the actual field work of a significant reconstruction movement in interior China, and certainly none has ever worked under more difficult circumstances. Fortunately, he has many old friends to help him, such as the Bailie engineers, J. J. Poan, the Chinese Quaker leader in rehabilitation of wounded soldiers, Ralph Lapwood, whom he knew at Medhurst College for poor boys in Shanghai, and others. The question people usually ask is "How can he work with the Chinese so well?" This is considered a mystery in the treaty-ports, but Alley does it very well. Aside from his intimate experience with Chinese industry, Alley's most important qualifications for his post are the ability to improvise and utilize existing conditions to the full, and the capacity of getting along with the type of Chinese with whom the Industrial Cooperatives have to deal. Where other experts from abroad would have given up in despair and indignation at the circumstances confronting an attempt to bring modern cooperative industry to the semi-feudal Chinese village, Alley takes them in his stride. He does not demand perfection at the outset, but has a broad vision of the ultimate goal that does not stop at model centers for visiting photographers and academic quibbling. For him the work is not an experiment on charts, but a living movement with all the multifarious problems of human life involved. His personality and background seem especially designed for the role he is playing in this dramatic attempt to rebuild a nation on a democratic basis in the midst of war and disruption. He is working successfully with the basic human material of China, with the workers and engineers and technicians, the refugees and villagers. One cannot point to a better proof of the splendid qualities inherent in the people of China than Alley's boundless sympathy and confidence in them after his difficult ex-

periences during the past thirteen years. Until he loses hope, one cannot justifiably give up faith in the ultimate future of this vast nation, in spite of all its backwardness and shortcomings.

One Chinese, trying to follow Alley at work for a few days, remarked that he was a "superman". Alley would probably give this commentator a demerit for that undemocratic notion, but certainly the activities of this creative individual are an inspiration. I risk Alley's displeasure in applying to him the remark he has made of his old friend, Joseph Bailie: "he stands out as a giant in this twilight where we grope so feebly and do so few of the things we are capable of doing."

III. CHINA'S FIRST COOPERATIVE COMMUNITY

1. EXPLORING NEW FRONTIERS

In China cooperative production at this stage is not Utopian but necessary. Due to difficult circumstances and lack of other ways of accumulating capital, the ideal coincides with the practical. Let us look into this experiment closely.

The first cooperative industrial center in China was started in the Northwest. It is here also that the movement has achieved its best results, and as reports from the Northwest are more adequate than from other headquarters, we shall tell of this region in some detail to give a picture of Indusco at work.

Bordering Mongolia and Manchuria is the vast, industrially undeveloped area which the Chinese call the "Great Northwest." It comprises the provinces west of the Yellow River—Shensi, Kansu, Ninghsia, Chinghai and Sinkiang. As Shensi is the main strategic center remaining under complete Chinese sovereignty, the whole of North China and its Japanese-occupied areas have also been placed under the Northwest Indusco Headquarters in west Shensi. These include Shansi, Hopei, Hupeh and Shantung. The Northwest region alone has an area about five times the size of France, hence the possibilities of development are very great.

Several hundred years ago the Northwest was the heart of Chinese dynasties, when the country was governed from Sian, the "Western Capital" in Shensi. Long before that Honan and Shensi were the cradle of the Chinese race, where its earliest civilization developed. Since the present war began the Northwest has again become an important theatre of events. It is considered a main base for Free China, and one of two principal arteries of supply and lines of communication.

Because of its new military and economic importance and security, west Shensi was chosen as the first site of Indusco operations, hence this old cradle of Chinese civilization became the new cradle of the renaissance movement. Although ordinarily considered the most backward region in China, for various reasons the population greeted the Indusco movement with enthusiasm. These reasons are partly explained by lack of previous industry and extreme poverty and also by unsettled political conditions. Shensi

had been the scene of famine and civil war for several years, culminating in the famous Sian mutiny and arrest of Chiang Kai-shek in December, 1936. In order to compete with the dynamic Chinese Communists in the northern part of the province, the rest of Shensi had to wake up and adopt progressive measures, much as rural cooperatives were found necessary in Kiangsi after the people there had enjoyed self-government for so long under the Reds.

Lu Kuang-mien and Rewi Alley took a thousand refugees to west Shensi in the summer of 1938, Lu arriving on August 23 and Alley on the 27th. C. F. Wu came shortly afterward. The refugees had come originally for the most part from Honan, Shantung, Hopei and Hankow. Their food and transportation was financed by Madame Chiang Kai-shek through the Women's Department of the New Life Movement.

As soon as Lu arrived in Paochi, a town at the terminus of the Lunghai Railway only a few miles from Sian, he called on several old friends and on the officials and heads of local organizations. Large posters were put up on the walls and gates of the town, stating that industry in China must be cooperative and that since the coast cities had been destroyed the back provinces must now become the industrial bases of the country. The C.I.C. office was prepared to lend money to suitable persons and skilled workers and refugees were invited to register.

When Alley arrived on the 27th a meeting was held of the representatives of twenty or thirty local organizations, including the magistrate, the Peace Preservation Corps, the army and the Kuomintang, in order to ensure the good-will of the authorities.

The first cooperative was organized three days after Lu's arrival. This was the blacksmiths' foundry.

The second cooperative was a group of 30 refugee stocking knitters from Honan, who got their machines from Sian. The third, organized at the end of the first week, was a soap-and-candle making unit with 12 members. Within two months this cooperative paid back \$500 of its original \$2,000 loan. The members went out into the streets beating drums to advertise their wares, and the dearth of soap and candles in the town created a big demand.

The fourth cooperative was a printing plant of 14 members, which started in this wise: An old printer and his seven apprentices had fled from Hsuechow and were at the ragged end of their resources, when the old man happened to spy one of the C.I.C. posters. In some confusion of mind he walked over to Lu's office to discuss the fantastic new "cooperative" idea. When Lu told him that he could have a loan of \$2,000 to start work again, he put

his grizzled old head down on the table and wept tears of joy. Another refugee printer from Chengchow came into the C.I.C. office about the same time and reported that he had men and knew where plenty of machines could be bought in Sian. Lu told him to get busy. Three days later the printer returned empty-handed.

"Why did you not go to Sian and get the machines?" Lu asked.

"How could I? I have no money to travel."

Lu gave him \$10 for the short trip. Within a few days he received a letter reporting that machinery, lithographing stones and paper were available costing two or three thousand dollars. The money was provided and the printer got his equipment to the railway station platform. Just at this inopportune moment, however, an air-raid alarm sounded. The printer sent his two helpers to a dugout, but himself refused to move away from his precious machinery. When the bombing squadron had left after its mission of destruction, the printer had a piece of sharpnel in his foot but the presses were saved!

There are many such stories. Lu's interesting report of the early days of Northwest Headquarters, nicely put out by our printer friends, tells a fascinating tale. Inmates of a Buddhist hospital for opium-addicts came to him saying they smoked opium because they had no hope of getting any work to do. They asked for money to start a flour mill beside a mountain stream. Now they are out in the healthful sunshine busy at work and curing themselves completely.

In Paochi a sect of 700 *Chen Jesu Chia* (True Christians) organized themselves spontaneously and came to the Indusco office to tell of their various qualifications and desire to form new cooperative societies. They were loaned \$40,000 and immediately started units for weaving, spinning, chemical work, tanning, leather-goods and metal working. Today they are probably the happiest Christian community in China and most evangelical about the cooperative spirit. Here is chapter and verse for missionary institutions to ponder. One of the first social activities of Indusco members in Paochi was the formation of a Christian Fellowship group of 40 members, who asked that a Y.M.C.A. secretary be sent to guide their work.

A settlement of exiles from Manchuria had been trying to eke out an existence in the hills near Sian, holding their land, schools and houses in common. They needed no argument to stir them to action. They discovered a deserted coal mine near by and came to the C.I.C. with a request for \$50 to operate it! They received far

more than their pathetic request. Today they are bringing out coal to supply the villages, and are apostles of new hope to their countrymen that they need not share the fate of Manchuria.

In October, 1938, Chief Cooperator Lu, accompanied by C. F. Wu, one of the "Bailie" engineers, made a three weeks' trip through the surrounding districts to formulate plans for expanding Indusco work. (Part of their journey by car was made possible by the use of alcohol, supplied by the plant established by Dr. Yang to provide a substitute for gasoline which is prohibitive in price in this far away region.)

During this trip they stayed overnight in an old Chinese temple. There they found a thin, dejected-looking man who seemed to understand what they were talking about. They made an appointment to talk with him on their return journey. This man turned out to be a Mr. Cho, a highly trained ironworker who had been educated abroad, now a refugee from the Taiyuan arsenal in Shansi. It further appeared that he was one of the two or three men in all China who had successfully made malleable iron as a substitute for steel. Mr. Cho was given a job in a cooperative machine-shop. After a month, one of the inspectors reported that Cho seemed to be self-centered and thinking more of getting shares and making money than of the cooperative spirit. Lu replied that as Cho was a specialist, he probably did not have much social or political consciousness, and that it was natural that he should be trying to do the best he could for himself. Lu decided to investigate and had lunch with Cho and his wife and child. They lived in such poverty that there were not even enough bowls and chopsticks in the house.

When an opportunity arrived, Lu spoke to Cho about the criticism, telling him that the cooperative slogan was "One for All and All for One," and that "while we live, you live." Cho had had his nose to the grindstone for so long that the true meaning of cooperative industry had not occurred to him. He was grateful to Lu, and replied: "Even if you give me no money and only food to eat, I will give myself to the movement."

At the end of the first two months Shensi had 40 cooperatives. By December there were 80 more. Lu was originally given only \$40,000 to start this Headquarters. Rapid development soon used this up and he wired frantically for half a million more. The fall of Hankow in October had disrupted Government offices. He was cut off from Alley for a month and a half, and finally had to telegraph direct to Dr. Kung, who sent \$200,000. In the meantime he had succeeded in borrowing \$20,000 from local bankers without

interest. His new funds were used up almost immediately and he renewed his pleas. No response. Dr. Kung wired him to come to Chungking. Apparently, nobody there could believe this little "relief project", as it was originally considered, was actually making good use of so much money. Lu soon convinced Dr. Kung, however, after making a personal appearance in Chungking, and received another \$200,000. He went on to Shanghai in December to try to interest bankers there in private loans, arranging for a few thousand, then hurried back to his post.

By this time Lu was getting fairly good cooperation from the local officials. The Shensi Provincial Banks had given their machine shop to Indusco. The Provincial Government had offered to let Indusco rent its Industrial Laboratory for two years, the only one in the whole Northwest. The Laboratory had cost \$100,000 and owned books worth \$10,000. Because of lack of funds and development work, it was sitting idle in Sian in danger of being bombed to the ground any day. Indusco had to secure \$6,000 to move the plant, and funds for an annual budget of \$10,000. After a time the \$6,000 was secured from Dr. Kung, though the running expenses had to be procured elsewhere. While evacuating the plant, C. F. Wu narrowly escaped death from bombing. Finally it was safely moved, and three or four of its technicians were employed for C.I.C. testing work. They have made analyses of raw materials for industrial use, such as caustic soda, alcohol, and minerals—lead, phosphorus and magnesium.

At the end of the first year (by September, 1939) the Northwest Headquarters in Shensi had expanded its work into Kansu and east across the Yellow River to Honan, Hupeh, and the "occupied" areas in Shansi. It had then 357 societies in these five provinces. (By the following February there were 500.) Lu Kuang-mien hoped, during 1940, to form a central Union of all these branches, and a Cooperative Treasury capitalized at \$5,000,000.

By September the original nucleus in Shensi had expanded to 203 societies, with 2,800 members; loans amounted to \$683,420, of which \$35,339 has been repaid. The total 357 societies numbered 4,308 members representing 12,368 shares. Share capital invested by members totalled \$133,436. The C.I.C. Administration had loaned \$702,080, while \$364,000 had been borrowed from the banks. In addition to these sums, the Central Army had advanced \$1,200,000 for the manufacture of army blankets, some of this work being done in the emergency by non-cooperative members.

The Shensi cooperatives have an iron smelter where malleable

iron is made as a substitute for steel. This is situated in the disused temple of the God of War. Glass-making and ceramic plants utilized local silica sand. They make thermos bottles and torch-lights among other things. Leather goods and tanning units do a flourishing business; in September, 1939, they produced goods valued at over \$128,000. Suitcases are also made from local bark. Printer's ink, paper and writing brushes supply local needs. At one time there were about 30 paper mills in the region, but nearly all are closed down. The natives say that paper had been produced in this region ever since its invention by Tsai Lun in the first century. Oilpressing is another Indusco job, utilizing sesame, rape and t'ung nuts. It was found that peasants were using excellent asbestos fibres eight to ten inches long to stuff their pillows with; Indusco is now utilizing this for more important purposes. The cooperatives make surgical cotton and gauze in large quantities for the army. Other products include umbrellas, shoes, stocking, uniforms, all kinds of silk, wool and cotton cloth, hand carts, bricks, agricultural implements, industrial machinery, confectionery, flour, starch, hats, sugar, furniture—in fact Indusco seems to be engaged in nearly every kind of craft from mining and carpentry to buttonmaking. Plans are afoot for the sugar and tea industries, now in a sad state of disrepair. Another enterprise is road-building.

Water-wheels provide power, together with charcoal and local coke. C. F. Wu, an expert electrical engineer, started the first local power plant of 30 kilowatt capacity.

In south Shensi the cooperative alcohol plant was producing daily 350 gallons of 98% pure alcohol made from *kaoliang* grain, corn and potatoes. This provided a cheap motor fuel mixed with gasoline in a 70-30 mixture, a great need in the Northwest where gasoline is prohibitive in price. The alcohol cooperative was so prosperous that within a few months it had paid back \$11,000 of the original loan.

The most important industry in the Northwest is cotton and wool spinning and weaving. Some 1,500,000 *piculs* (about 88,000 tons) of raw cotton are grown yearly in Shensi. In 1938 cotton sold for \$18 to \$20 a *picul* in Shensi and \$120 in Szechuan. Before the war the Szechuan price was \$40 to \$45. A bale of cotton of 15 or 20 counts of yarn formerly sold for \$150 brought \$850 in early 1939, and often could not be had at that price. There was only one spinning mill in Sian of 25,000 spindles, which stopped work when Sian was bombed. The Government moved the Ta Tung, Hsin Hsin and Hupeh Provincial Mills to west Shensi, spending hundreds of thousands of dollars, yet most of the machinery will

probably have to lie idle until after the war because of danger of bombing and lack of coal. Indusco leaders in the Northwest have estimated that \$1 in cooperative industry is now worth \$100 in private production.

Indusco brought in hand spinning machines of the July 7 type from Chungking, and those developed by Smythe of the University of Nanking, and started work immediately. Their machine shop now produces much of the necessary equipment. Country women were also given a month's training in classes of 20 or 30 at a time, after which they went back to their homes to organize local spinning and weaving cooperatives.

Indusco spinning and weaving units (164 societies) produced goods valued at over \$303,000 during the month of September, 1939, with original share capital amounting to only \$36,000, aside from loans.

Wool is plentiful in the Northwest, a grazing country, but very little native use has been made of it in the past. Local farmers wear rough sheepskins, but the price of woollen goods has been too high for wide use. Most of China's wool has been exported to Japan through Tientsin, where it made winter blankets and uniforms for Nipponese armies to conquer Manchuria and North China. Wool yarn was sometimes re-imported from Japan for knitting mills in Shanghai and elsewhere, a travelling circuit of several thousand miles. No yarn was available in the Northwest when Indusco started its woollen industry, but the lack was soon remedied.

In spite of the backward economic conditions in the Northwest, the cooperatives flourished at an astounding rate. Indusco goods became so popular that outside firms promptly stole their triangular trademark for sales purposes!

Spinning and weaving engaged 164 of these societies; leather work 17 societies; metal work 17; mining 17, chemicals 29, food-stuffs, 42; printing and paper 9; and miscellaneous 62.¹ It is in mining that most of the poorest refugees find their livelihood and 420 members were engaged in this work, the third largest number of workers.

As indication of the flourishing condition of the Northwest Headquarters, the monthly production during September, 1939, was \$825,949.74, with a total capital outlay of \$1,066,080 in loans and \$133,436 in share capital. Value of production from January to September was \$5,114,243.22. This is a good turnover, as much

¹ See Appendix for tables on Northwest Headquarters work.

of the money was not put into production until the last few months. At this time there were 4,308 cooperative members—which means that the average cost of putting *one member* into production was about \$280 or US \$28. This, however, does not give the true picture as at least twice that number of unorganized persons were employed by Indusco in piece-work, and the capital outlay included all the heavy initial and administrative expenses, including expensive heavy industry bases (the Northwest has four machine-shops) which employ only a few technicians. (For instance, the Women's Department in December had only 364 members, but employed part-time 6,000 allied women-workers not organized into cooperatives.) At the same time each member was able to provide for three or four dependents. Hence, it may be said that the original cost of putting one person to work in the Northwest cooperative movement was about US \$14. This is much higher than in other provinces, due to the isolation of the Northwest region. Miss Jen Chu-min states that the Women's Department requires \$130.00 to put one woman member to work in an average cooperative of 12 members capitalized at \$1,500. That is about US \$13.

Cost of living as well as of production is higher in the Northwest than elsewhere in China. Cooperative members must pay \$12 to \$13 a month for food, in spite of the fact that they eat in groups, thereby cutting down individual costs. The head cooperative tailor in Paochi states that a certain kind of cloth which cost \$18 a *pi* before the war, rose to \$30 by January, 1939, and to \$98 a year later.

Building costs are high due to lack of timber in this arid region, though most houses are made of mud and a good percentage of the population lives in caves. Indusco started with makeshift accommodations, taking over disused buildings and renting ordinary houses. The danger of bombing, however, is ever present. Every depot wants a bombproof central office with assembly hall, administration office, clinic, and storage caves nearby. On this subject, Alley, wrote: "Lacking such facilities, work is hampered. Co-op federations meet standing in the snow in one depot in Kansu. In another they meet in an open yard." Even in the model "Indusco Town" in Shensi the federation meets "in the bottom of an old shop—while I was last attending a meeting there, the night school that wanted to come in next was running around the township, drilling to keep warm. That is all right, but encouragement is needed to make these places better than front line work as bases are expected to be. The Northwest is a cold place, building is dear."

When Alley was on his inspection tour to the Northwest in 1939, he wrote the following to the Chairman of the Hongkong Promotion Committee:

"The N. W. is very inspiring. One sees in action some of the things one had dreamed about. No fancy, propaganda hot-house plant stuff, but real work. Yesterday the Central Committee of the Co-op Federation asked Hubert Liang and me to tea and talk. We suggested that they come to the C.I.C. office for this, but they sent back word saying that they would have it in their Market and Purchase offices. I liked that—the C.I.C. is a Government organ. They wanted to be in their own place—the place that was created from the goods they had made. We got them all telling stories about themselves. Their histories were all good material for an article if ever I had time to write it. All were chairmen of co-ops. One had been an organiser of rural co-ops in Kiangsi and was disgusted with bureaucracy. He found happiness in the C.I.C. Another was an ex-foreman of a Hankow cotton mill, who knew me in Hankow. When he first heard of the C.I.C. he thought that it was a device to screw the people somehow, and did not like to have anything to do with it, but then he became a refugee and his women folk were evacuated to Paochi. Another was an ex-guerrilla fighter in Manchuria, who had been fighting since 1930, but who had come to the west sick and wounded, his youth gone. Another a photographer in Honan, and now the chairman of the Federation and of his own chemical goods co-op. Then one who had been with the China International Famine Relief Commission in Peiping co-ops, Refugees across N. Shansi to N. Shensi and then down here. Again one who had been a child worker at the age of ten, and had had twenty years of city factory life, with its strikes, its long hours, its trickery and so on. And how much the C.I.C. meant to him and his whole co-op. He has made a "Kung Ho" in grass outside his co-op . . . An ex-school teacher from occupied territory, and an ex-Red Cross man with famine work experience, and now chairman of a surgical gauze co-op. And so on—they were an encouraging crowd.

"It was fun to pass a lone kid, doing his morning job by a grave mound, and singing lustily the co-op song, while he tied up the tapes around him—"All for One and One for All."

"I have just come in after having an afternoon with Miss Jen—looking at some of her women's work. It is really good. We passed a bunch of six-year olds marching down the loess valley road from the school which was housed in a temple vacated by the soldiers because they wanted to help "kung ho." The kids were

singing "Ch'i Lai" in good kung-ho fashion. In the school, temple doors raised on bricks were used for tables and a plank on bricks for seats. There were still some of the older boys sitting in school, one copying out a textbook—there was only one textbook for his class of six and he wanted a copy to take home. The head teacher is a Kiangsu-Shanghai girl, with no nonsense about her.

"On the way back we went into what George Hogg . . . calls our 'Garden City.' It is a walled compound we have had put up, where refugees will spin and weave. Have ambitious schemes to put it into snappy modern tree and garden setting . . .

"The work in Kansu and the depots on that line are grand. In Lanchow, in spite of recent bombings, our work goes along splendidly. Lots of exciting things in those vicinities—Federation meetings, Marketing and Purchasing Depots, Mohammedan Co-ops, True Christian Co-ops, Tibetan Co-ops south of Lanchow, Crippled Soldier Co-ops, Women's Co-ops, prisoners in the jail, orphans in their orphanages, soldiers in hospital all spinning wool for our blanket weaving co-ops. It is quite a lyric. Refugee co-ops, guerrilla co-ops, co-ops backed by Catholic priests, Protestant missionaries, a Y.W.C.A. co-op. It makes one realize that our movement, if it is allowed to continue, will make for a greater, a more connected and a real new China. China has before always tried to unite by force of arms. This method we try is one that rests on the most solid of all foundations—the people's livelihood. Somehow or other we must struggle to keep it on its way."

2. REVOLUTIONIZING CHINESE VILLAGE LIFE

The Industrial Cooperative movement has already revolutionized the social and economic life of several villages in Shensi. It dominates the spirit of the large Headquarters town, where the magistrate is a C.I.C. man. It calls mass meetings on national holidays, maintains its own schools and educational groups, its own transport and distributive system, its own marketing and credit organization,² its own medical service, etc. The atmosphere is one of pride and achievement. One of the first things instituted was a museum of local products and raw materials for industry accompanied by the finished Indusco goods—today every district has one of these. The Cooperators' Club manages a hostel where travelling co-workers and visitors stay.

This region is becoming the model social settlement of China.

² These activities are described in separate chapters on education, women's work, hospitals, etc.

It calls to mind the idealistic dreams of social workers for so many generations—of the settlements under Fourier, Owen, the Quakers, the Pilgrim Fathers, and other groups who once ventured out to set up their new societies in the New World of America. Every man is a producer, sharing equally in the fruits of the labor of all. "One for all, and all for one", is the Indusco slogan. As Nova Scotia is the showplace for cooperatives in North America today, so Shensi is becoming the experiment center for social-minded travellers in the Far East.

In peacetime Indusco would have had a hard fight to break down opposition to change, but the emergencies of war have paved the way for its acceptance. The Northwest has had the easiest time of all in the realm of local politics. When the Headquarters was first set up the local magistrate blocked its progress. Indusco won a victory, however, and was able to secure the appointment of one of its own men, Mr. Wang Feng-jui. The story of his reforms is now famous throughout the Northwest. This is not the rule in most cooperative centers, however. The local magistrate is the basic civil ruling power in China, controlled by the gentry. Usually he is the most reactionary, backward individual in the social structure. By instinct, he fights everything new that might disturb the ancient semi-feudal order, not inquiring whether it might turn out to be good or bad. If he can make squeeze out of any enterprise, it may be permitted to exist. Otherwise, he is usually merely the instrument of the local gentry for collecting taxes and maintaining peace and order—which usually means suppressing any popular democratic tendency that might arise.

The cooperative unit is democratic. Only one vote is allowed to each member. There must be no less than seven members to one society. The average has 15 to 30, and the largest consists of 80 members. The chairman, who is the official representative for his society, and the committee of directors are elected by the members. No one member is allowed to buy more than 20% of the total number of shares. Proceeds go to pay interest on shares, interest on borrowed capital, wages, and salaries of administrators, after which it must provide a reserve fund for emergencies and an extension fund. Any surplus goes into a sinking fund.

According to the Constitution,² drawn up by a committee of cooperators, including Rewi Alley, J. B. Tayler, Lewis S. C. Smythe, Paul Hsu and others, in collaboration with W. H. K. Campbell, Cooperative expert from the League of Nations, the value of each

² See Appendix for details of this Constitution.

share is to be \$2.00, of which at least fifty cents shall be paid on election and the balance as decided by the board of directors (usually from wages). Liability is usually fixed at twenty times share capital, but this is elastic depending upon circumstances. Qualifications for membership are lenient, depending primarily only upon the earning capacity, honesty, good character and freedom from bad habits, such as opium smoking, use of drugs, gambling, etc. A member can belong to only one registered cooperative society. A member may resign at the end of the fiscal year, but will receive only the nominal value of his share holding. Expulsion for uncooperative conduct detrimental to the interests of the society may be voted by a majority at a General Meeting. The wage scale is determined by the General Meeting according to the different classes of work.

Members of each cooperative have meetings regularly, led by the chief cooperators. National Salvation songs are taught, then comes a lecture followed by a discussion of local problems. Every Wednesday evening inter-society meetings are held in the head office. Here the leaders talk over their problems, sing their songs and sometimes have dramatics for entertainment. A Social and Promotion Committee was created to include the local newspapermen, bankers, officials, students and other elements of the community. Through this good relations were kept, and the town-people educated to the meaning of the movement.

Educational work was needed at once, but no funds were provided by the Government for this. Lu Kuang-mien had to finance his first class in cooperative management out of his own salary. Special Funds were later sought for this work. Technical training classes have been held in the weaving of cotton, wool and hemp, mostly for women. Over 1,000 had taken these short courses at the end of the first year. Two classes for cooperative organizers had likewise been held, the term being two months for each. To expand and promote the work and provide trained personnel to go back into the war areas, Lu has plans for two types of schooling, one for technical advisors. The classes will each last six months. He estimates that the total cost for 150 individuals would be \$26,500 each session. This provides instructors, food, clothing and accommodation at the rate of about \$150 per person. He also has plans to set up middle schools and vocational courses for apprentices. With such educational work, the cooperative societies will be able to operate independently.

Lu also hopes to set up a Technical Research Station "to investigate the improvement of old methods of production and the

adaptation of old tools to simple modern patterns." Model industrial research factories would be established in connection with the Station. "These would be cooperative in principle, and skilled craftsmen would manage them. The minimum requirement would be N. C. \$200,000 for the establishment of the Station, and allied factories in cotton and wool-spinning and weaving, paper making, leather tanning, iron-smelting and a machine shop." Lu states that "Improvement of technique affects the whole of our industry. New machines are expensive and techniques slowly acquired. Steps must be taken to build up gradually a simple but improved technical knowledge."

One of the most difficult problems in this area is transportation. Trucks and gasoline were out of the question for Indusco, having no money for such luxuries. Surfaced roads exist, built for military purposes during the civil war, although iron-tired farmer's heavy carts are not permitted on them to prevent ruining the surface. This is obviated by providing pneumatic tires for the carts, and Indusco soon started its own transport Cooperative of 150 rubber tired carts, drawn by mules. Such carts are fantastically expensive. In 1939 a pair of used automobile tires cost \$700. Wheels and axles brought the cost up to \$1,000. Two mules cost \$400 and the body \$100. For long hauls over mountainous country Dunlop wheels are much in demand. In appealing for donations of used tires and wheels Alley wrote in 1940 that Dunlop wheels probably cost about \$2,000 a pair in Haiphong and that "in Paochi, at the moment, you probably could not buy a cart with good wheels and in good order for under \$3,000."

In the beginning each cooperative marketed its own goods, but on November 30, 1939, a Union of thirty societies was formed to take care of distribution and purchase of raw materials. As new cooperatives were organized they sent one representative to the Union. Assisted by the Headquarters, the Union opened six cooperative branch stores, with capital supplied jointly. There is no difficulty in marketing goods. They are sold as soon as available.

The cooperative store or "Supply and Marketing Department" in the Headquarters town is the largest and handsomest merchandising establishment in this town of about 40,000 population. In September, 1939, it handled over 200 different articles representing the output of over 60 nearby cooperatives. Although it received an incendiary bomb in October, it was rebuilt immediately, the cooperative members declaring the Japanese had saved them the trouble of "pulling down premises that had become too small."

The *Northwest Indusco News* of January 10, 1940, uses this

store as an index to Indusco prosperity:

"The passing of the old year saw the (Headquarters) district with 61 co-ops actually working, with 740 members, and a total loan capital of \$380,000. Monthly output is well over half a million dollars, of which 2/5ths is sold through the Paochi Supply and Marketing Department. Outside this system is a caustic soda works under the Industrial Chemical Laboratory, thousands of women refugees and wounded soldiers working on piece rates for C.I.C. but not yet formed into cooperatives, and the output of the students at technical training course. An index of C.I.C.'s present growth is provided by the balance sheet of the Supply and Marketing Department (Paochi branch) which showed a net profit on the year's business of \$83,450.88—this in spite of being for two months without proper premises owing to the bombing of October 31st. Figures for the number of new members to be taken in and of the profits to be divided at the opening of this year are not yet available, but it seems likely that when the count has been made it will be found that there are over 1,200 members as from January 1st, and that the profits for 1939 (although many societies did not begin work until well into the year) will be between \$80,000 and \$90,000.

"At present a large proportion of the cooperative output in Paochi goes to the army. Critics may point to this, saying "industrial cooperatives are all very well during war time, but how will they fare after the war, when they have to compete with the products of revived city industry carried on the new war-built roads and railways?" In answer to them we point to the success of the Supply and Marketing Department, which is an indication of the degree of integration between the different co-op units, and of the extent to which the advantages of large-scale production can be maintained by a cooperative movement which at the same time ensures pride in possession, and social activities of the group—the advantages of small-scale production.

"For this reason we give below the details of Paochi Supply and Marketing Department for 1939.

10% commission on sales for cooperative societies	\$13,914.12
Profit on wholesale trading, i.e.,	
(a) raw materials bought for co-ops ..	
(b) wholesale sale of co-op products ..	88,110.64
Profit on retail sales of co-op products ..	9,959.25
Total gross trading profits	\$111,824.12
Interest on advances to societies, and miscellaneous receipts	4,411.74
Total	\$116,235.86
Business Expenses	\$ 9,914.07
Administrative Expenses	13,798.04
Depreciation and Spoiled Goods	2,925.63
Interest paid	6,147.24
Total	\$32,784.98
<i>Net Profit for Distribution</i>	\$83,450.88

"Of this net profit, 20% was put to reserves, 15% will be distributed to the societies in proportion to their trade with and through the Supply and Marketing Department, 10% is put aside for expansion, 10% will go to the C.I.C., another 10% will go as the law demands to the staff, 10% to a joint common goods fund for the Paochi district co-ops, 5% to start a provident fund for the Department's workers, and the remaining 20% to a Federation Fund which aims at equalizing the earnings of cooperatives to some extent so that the windfall earnings of those co-ops which find themselves in peculiarly favourable situations shall be spread over the whole district.

"The Board of Directors (7 men) of the Supply and Marketing Department is elected by the Paochi district Union (1 representative elected from each co-op). This Board of Directors then appoints four of its own number to sit on the Managing Committee together with three nominees of the C.I.C. The Managing Committee then elects the Manager of the Department from one of the three C.I.C. nominees. Shares in the Department cost \$20, no limit on shares, but one co-op one vote (i.e. at the Union meetings).

"In January 1939 the total dairy sales of the Department averaged \$117. By August they had reached \$1,380, and at present they are over \$2,000 daily. As the year went on the societies came to understand the advantages of the joint facilities offered them by the Department, and to buy more and sell more through

it. Sister Supply and Marketing Departments have started work in the other districts of the Northwest, and interchange of products is already developing both by ordinary communication systems and by our own motor truck. The Marketing and Supply Department is a cooperative feature of great significance to the future welding of all the thousands of small producer units into a single powerful system. It is hoped in the Northwest Headquarters that the \$12,500 odd which is to be distributed among the producer societies of Paochi district, as their share in the profits of the Supply and Marketing Department, will give these societies an increased consciousness of their part in a great movement. This division will probably take the form of increased interest-bearing shares in the Department. The 20% Federation Fund will have the same effect of making the co-ops family-conscious. And the Common Goods Fund's 10% will help to make fresh development of co-op educational, health, and social facilities."

This store buys raw materials for the cooperatives, as well as selling their goods. Many small cooperatives are able to make huge profits because Shanghai and other former industrial centers are cut off, communications are hopeless and the army stimulates demand. After the war these advantages will not exist, however.

The store is efficiently managed by Mr. Ho Ching-ming, chief of the Supply and Marketing Department. Though Mr. Ho received a \$2,000 bonus, according to the law which grants 10% to the staff as bonus, he gave all of it except \$300 to local educational work. He and Lu Kuang-mien formerly worked together in the province of Hopei, where some of the first marketing cooperatives in China were organized. Likewise a native of Manchuria, Mr. Ho is 39 years old. He was in Shensi when the war began, helping to settle Tungpei refugees on reclaimed wasteland. He impresses travellers as being one of the most capable men in the entire organization and has made an outstanding success of retailing cooperative goods.

In Sian the cooperative store had even better success according to the *Northwest Indusco News* report:

"The first Marketing and Supply Department store opened in Sian in August 1939. Sales averaged \$7,000 monthly throughout the year. On January 28, 1940 new premises were opened in a prominent position on the main street of the town, and in the first eleven days of business \$5,685 worth of goods went over the counter, 60% of which was cotton cloth and 20% shoes. Sales are increasing rapidly and the store is advertising in three local moving picture houses and two newspapers. As other districts in

the Northwest develop their Supply and Marketing Departments, and as a system of C.I.C. transport is worked out, a wider range of goods will be held in stock."

In September 1939 Edgar Snow made a trip to the Northwest. His observations of the Indusco movement under the Northwest Headquarters follow:

"One of the most arresting improvisations of the Chinese Industrial Cooperatives in the Northwest is the alcohol distillation plan in southern Shensi. This was constructed and is managed by Dr. Yang Yu-cheng, an industrial engineer who studied in Germany. Dr. Yang, a handsome man of about 50, is the eldest of the large *Tungpei* (Manchurian) contingent under the Northwest Headquarters of the movement, and was formerly Dean of the Engineering Department of the Northeastern University.

"Before 1931 he was director of the machine shop in the great Mukden Arsenal in Manchuria. It was just beginning to turn out motor trucks when the Japanese lost a piece of railway track near Mukden, and in retaliation took over the Three Eastern Provinces. The Mukden Arsenal, incidentally, is but one of many Chinese armaments factories which are now working for the Japanese. Dr. Yang later came down to the Northwest, where he worked with some German engineers in the improvement and operation of the Shensi Alcohol Factory, which was located at Hsien-yang, near Sianfu.

"As part of what seems a general Government plan to maintain no basic industry in the Northwest it was decided last year to close the Hsienyang plant. In May the Shensi Government stopped subsidizing it, and ordered it dismantled and shipped to Szechuan. Dr. Yang, realizing the urgent need of the Northwest for a continued supply of alcohol, made energetic efforts to have the decision altered—but failed.

"It was a lucky circumstance for industrial cooperatives that Dr. Yang joined the unemployed. A few conferences between him and "Indusco" leaders of the Northwest resulted in a scheme to build a new plant on a cooperative basis. Dr. Yang found a suitable site where a factory could be snugly camouflaged in the side of a loess hill, and there he started work late last spring. Today he has one German-made still in operation and is producing a copy of it from local materials. Row upon row of earthen vats have been excavated, and big stores of potatoes and Kaoliang laid in. For an investment of N.C. \$60,000 "Indusco" will have a plant with a daily capacity of 500 gallons of alcohol—the only one of its kind north of Szechuan. Its present production is 170 gallons a day.

"Alcohol has numerous uses in industry, it is indispensable for medical work, and in the Northwest it is in great demand as fuel. Mixed with gasoline in proportions of about seven to three, it represents a substantial saving, where gasoline retails at from \$15 to \$20 per gallon.

"About 40 workers are employed at Yang's plant. He himself is on salary as a technical expert, for the sum of N.C. \$300 per month. The workers eventually will pay back the loan and operate the plant, which has rosy prospects. Army demands in Shensi alone can absorb several times the output. When he has made a successful demonstration, Yang plans to double or treble the plant's capacity.

"One of the best cooperatives in N. is a comparatively small one. It is a carpentry shop with only seven members, and a capital of N.C. \$2,400. It won me over at once, with its ambitious title, the "Kiangsu-Chekiang Engineering Cooperative"! It had been operating only since April, 1939—few of the co-ops were more than six months old—but was doing a business of over \$1,000 monthly. This shop made many of the new bi-lingual (Sino-Russian) signs for the south Shensi highway, and it has done construction work on the road. Since its organization is fairly typical of the smaller cooperative, a brief description may be instructive.

"Members work, sleep and eat on the premises, sharing all expenses cooperatively. They take turns at cooking and chores. They have a dormitory, with double tiers of beds, and it is neatly kept. There is a club room, a combined study, recreation, and meeting place. Here I found copies of various cooperative publications. There was the local newspaper, for example, for August 5th, the first anniversary of the founding of C.I.C. in the Northwest. It carried a number of articles describing the origin of the movement, its purpose, and the progress made in one year.

"On the walls were pasted slogans which define and state the aims of C.I.C. in simple arresting sentences. Here are some samples:

1. Industrial Cooperatives are *really* the workers' shops
2. Encourage mutual discussion and mutual help
3. Develop self-government and self-reliance
4. We share alike both benefits and hardships
5. To strengthen our work is to help national resistance
6. Industrial Cooperatives are the most effective method of
boycotting enemy goods
7. Abolish selfishness

8. Cleanliness is health; and good health means better work
9. Industrial Cooperatives help to realize the "Livelihood" principle of the *San Min Chu I*
10. Industrial Cooperatives help to exploit our national resources
11. Industrial Cooperatives are the backbone of our Economic Defence
12. Industrial Cooperatives encourage the spirit of research
13. Only those who work shall eat !
14. Our soldiers shed blood on the battlefields: we sweat to support them !
15. Workers of the whole nation, awake and mobilize !

"The Kuan-li-yuan, or cooperative chairman, also showed me the regulations (adopted in common meetings by the workers themselves) which govern their routine. The list is posted in the club room and dormitory. Breakfast is at 5.30; work begins at 6; lunch is at 12; and work is resumed at one, continuing till six. A 12 hour day of their own choosing! Men don't mind long hours, apparently if they are working for themselves. Other agreements in their mutual contract provide against spitting inside the building (very important), time-killing, shouting, leaving the premises without permission, and carelessness with tools. One member is responsible for looking after the premises each day, and a general meeting of the cooperatives is held once a month. Workers who repeatedly violate these and other orders, or who fail to obey the chairman, may be expelled in a general meeting, their shares being purchased by other members.

"The Kiangsu-Chekiang Engineering Cooperative is making profits of about 20%. It gets its name from the fact that most of its members are refugees from the provinces indicated—a large number from the vicinity of Shanghai.

"Regulations similar to those mentioned guide most industrial cooperatives, but each adopts its own code independently, in democratic meeting. There are variations according to the type of work, the geographical location, and other factors.

"N. has an interesting weaving cooperative which has some original slogans of its own. On the walls are such exhortations as these: "At the front kill the enemy, in the rear produce goods"; and "I work for all and all work for me." The chairman of this cooperative has a poetic bent and has written the cooperative regulations in verse. Here is an excerpt from one of his efforts:

Register all transactions,
Balance accounts every day,
Be friendly and kind to each other;
Inside this society all are brothers,
There is really no need for many rules
The important thing is to do your duty.

"The cooperative chairman, Kuang Sheng-fu, was before joining the movement, for 10 years a teacher in a local primary school in south Shensi. He is a graduate of Hankow technical school, where he specialized in dyeing and weaving.

"He came one day, a hesitant and elderly teacher, into the local office of the C.I.C., to inquire very earnestly how an industrial cooperative was formed.

"'In the past,' he said, 'I learned how to weave cloth and towels. I was once employed in a local weaving factory that long ago went bankrupt because it was unable to compete with cheaper goods from the coast . . . I can find some discarded looms and knitting machines, which have been hidden away. I could put them into working shape quite easily.'

"'How much capital' the Indusco representative asked, 'would it take to set up the cooperative?'

"Timidly he ventured to suggest that if the money needed to procure *one bale of cotton yarn* could be granted he thought that the cooperative might be organized. He was told to go ahead. He quickly resurrected the weaving looms and knitting machines, which were found to be in need of only minor repairs.

"Together with the C.I.C. engineer, they soon had the machines working. Presently he had mobilized six of the unemployed workers from his old factory, and was eager to start production. They then had their first meeting as a co-op. The C.I.C. loaned them enough to meet their needs. Without further preliminaries they began turning yarn into finished goods for sale in the local cooperative store.

"That was last March. Production is now \$3,000 monthly in the weaving plant. A new dyeing plant will soon do the same amount of business. There is big money to be made in dyeing, as the old native indigo industry has become almost a lost art, while foreign dyes are prohibitive now in cost. Anticipated profits here are over 50 per cent.

"I talked to Kuang for some time about the actual mechanism of cooperative management. He told me that they balance their accounts every five days, when an inspector from the Depot calls

to examine the books. These inspectors are accountants trained for three months in the school operated by C.I.C. They are chosen from the cooperative members themselves. I was surprised to discover that the rudiments of simple accounting are mastered by these untutored students in such a short time. Only about one out of four candidates fails to pass the examinations.

"The 12 members in this particular cooperative had paid in a total of \$120 in share capital, at six dollars each. Two had but recently joined and had not yet paid for their shares. Kuang did not seem to have a very definite idea about when or how undivided profits were to be allocated. His own wish was for the cooperative to invest all such profits in the new dyeing plant and he said that he believed that the other members would agree with him. None of the original loan had yet been liquidated. But the cooperative had \$2,000 in products on its shelves and Kuang claimed that when payment fell due there would be no difficulty.

"Wages are actually on a piece-work basis. Worker members receive \$1.20 for every 50 feet of cloth woven. Their food is purchased in common by the cooperative. Wages per member amount to only \$7.00 or \$8.00 per month, and the chairman himself makes only \$12 per month. This is, of course, exclusive of the cooperative profits which are shared equally among members.

"I visited a number of other cooperatives inside the walled city including the machine shop. Its chairman, Chang Ming-shan, is a Tsingtao man who was trained in the Ssufang Machine Works, which did repair work for the Tsingtao-Tsinan Railway, now occupied by the Japanese. It took three months to collect, from Sian and the vicinity, the few simple machines necessary to start this cooperative—a sidelight on transport difficulties. Although organized only in March, 1939, it has more work now than it can handle. Screens, iron work for highway bridges, bolts and nuts, bearings, and articles in demand for highway construction are among the things it produces.

"One other cooperative near N. deserves special mention. It is a masterpiece of improvisation. This is the Indusco glass plant, which will make all kinds of commodity glassware, and some articles of military use also. With a capital of only N.C. \$2,000 (about U.S. \$133) its plant includes two furnaces, six melting pots with a capacity of 120 pounds each, a drying furnace, and a number of other fixtures which seem to be made mostly of mud and straw, but apparently serve the purpose well enough. The smokestack of the main furnace, about 30 feet high, is made with a mud exterior built around a brick tile lining and is somehow held together by a

bamboo frame. A stack serving the same purpose would in a western country cost many times more than this entire plant.

"The glass factory is the ingenious work of Mr. Hsu Hungling, who is a graduate of Shansi University. Until its capture by the Japanese, he worked in the Taiyuan Arsenal. Hsu is a returned student from Japan where he specialized in the manufacture of optical lenses. The factory is inconspicuously located on spacious premises in the country rented for a total of \$48 (about U.S. \$3.00) per year! It has about 30 members, the majority of them refugee women whom Hsu is training for this work. Seven male blowers and moulders are the only skilled labor required."

3. "INDUSCO TOWN"

Along what is becoming the "Indusco Highway" to the Northwest there is a little hill-cradled village of three or four thousand inhabitants which is virtually an "Indusco town", with its main street called "Kung Ho Lu" or "Indusco Street." This place was a sleepy unattractive hamlet before the war, but after the completion of the Northwest road its importance increased. Here the "turnpike" to Lanchow branches off into Kansu and here the Russian trucks coming down from Turkestan meet the highway to Szechuan.

Edgar Snow describes his impressions of this model Indusco village, which may not be named because of the danger of bombing, as follows:

"C.I.C. was the first war-time organization to realize the potential commercial importance of this village. The "industrial boom" has made it a popular market-place in this part of Shensi. C.I.C. operates over 50 cooperatives nearby and has its own primary school and hospital.

"Indusco Town is the home of the Northwest's biggest co-operative machine shop. It is one of the most ambitious of all the cooperatives, with a current capitalization of \$54,000. At present it is engaged mostly in the manufacture of spinning, weaving and carding machines, in connection with the establishment of a score of blanket-making cooperatives, filling a huge Army order for 25,000 Indusco blankets. It has in the past produced a considerable quantity of grenades, small arms and other military supplies.

"Most of the machine-shop workers came from some of China's lost arsenals—from Shansi, Hunan, Nanking, and Mukden. One group of machinists belonged to the ordnance repair section of the 53rd army, and it was they who originally started the shop. In 1938 about a dozen of these men gathered together in Paochi as

refugees. They drew up their own plan to present to C.I.C. and asked for a loan of \$100,000. At that time C.I.C. did not have total assets of \$100,000, and Engineer Wu Chu-fei cut down their request by 80%. Then one day a Mr. Hsieh Ming-chou came to call on Wu.

"This fellow Hsieh was formerly a Manchurian magistrate, but he became a refugee after 1931. At the beginning of the present war he led a group of Manchurians down to southeast Shensi, to form the Tungpei Refugee Colony mentioned above. He helped them to find land and to learn to till it. Afterwards he went to Paochi where he joined the *hsien* government under the progressive leadership of Mr. Wang Feng-jui.

"Said Mr. Hsieh to Engineer Wu:

"There are some 12 or 14 pieces of machinery here in Shensi which belong to the 53rd (Manchurian) Army. The workers have been disbanded and the machinery is going to be sent somewhere to the south or become junk. We need that machinery up here to help our armies in the Northwest. If you will lend us \$50,000 to start a machine shop we will ask General Wan Fu-lin to contribute these machines to the cooperative. We can pay the 53rd Army a rental for the use of the equipment.

"Wu agreed to this proposal and so the cooperative came into being. General Wan was so moved by the plan that he dismissed the question of rental. If the cooperative made a profit beyond an agreed percentage, General Wan stipulated, it should contribute \$600 a year to help the weaving cooperative for wives and widows of Manchurian soldiers. Mr. Hsieh, the former magistrate, is today chairman of the board of directors of the machine shop.

"An interesting feature of this industry is the source of its primary power. A nearby stream has been turned to operate a large water wheel which furnishes sufficient power for the entire machine shop. The wheel is one of the marvels of the neighborhood and farmers when they come to market, watch it churn the stream and send out flying spray. It serves very well as a model power plant in a region almost void of electrical machinery.

"Along the same stream, but a short distance from the water wheel, is the testing laboratory. Subsidy for the latter was withdrawn, for obscure reasons, shortly after the war began. In order to save it from being dismantled and lost to the Northwest, the C.I.C. negotiated with the provincial government and finally secured the permission to rent part of the equipment for \$10,000 a year. Indusco thus has the only testing laboratory operating today in all the Northwest.

"I asked the chairman of the 'lab' whether it was possible to produce explosives with the plant available." He replied:

"No sulphuric acid is produced in the Northwest at present, except a small quantity at Sian. Before the war the Sian plant was operating at full capacity, but after last autumn the Government ordered it to discontinue. Why? I do not know. It is our only plant north of Szechuan, and its production is very important. Most of it is now idle."

There is no nitric acid plant in the Northwest, although one could easily be built. There is plenty of raw material available, but Government plans seem altogether to exclude the possibility of building explosives industry in this region. Nitroglycerin, TNT and dynamite can all be produced in Shensi, and at no very great expense. The Government's reluctance to support such necessary war industries here is to all observers incomprehensible.

"Indusco Town co-ops include mines, brick kilns, and leather-tanning, uniform-making and wool spinning and weaving industries. There is a neat club-room in connection with the depot office—and the inevitable ping-pong table.

"An important industry is a paper factory, with 33 workers. Flax, cotton, straw, wheat stalks, mulberry twigs and bark are the materials with which it produces newsprint, stationery, wrapping paper and various other paper goods. With a monthly output of 130,000 sheets, worth about \$16,000 on the present market, it undersells the cheap Japanese paper, and still makes a profit of about 25%. Its products are in great demand. I have seen some being shipped as far north as Yulin on the Great Wall.

"In connection with the paper cooperative, which has a spacious compound, there is a primary school for children of the "Indusco" workers. Special Indusco textbooks are used printed in C.I.C. shops, on C.I.C. paper. The school has at present over 50 students, and is under the direction of the Women's Work Department of the C.I.C. There is but one local government school, which still operates under the Confucian maxims of 2,000 years ago. "Indusco" workers felt it necessary to train their own children in the realities of a more modern world. Among other things the students from the youngest up receive instruction in cooperative principles—and also in drill and manoeuvres. I saw the small-boy captain wheel his schoolmates in and out and back and forth through the compound as smartly as Whampoa cadets. They all carried little schoolbook satchels with the Kung He triangle embroidered on them by their mothers. They seemed proud young warriors of a new industrial army."

4. LU KUANG-MIEN AND C. F. WU

The main inspiration of the Northwest Headquarters has been the leadership of Lu Kuang-mien, Director, and C. P. Wu, head of the engineering work.

Lu Kuang-mien was born in Manchuria in 1905, and educated in Peking where he graduated from college in 1928, majoring in chemistry. He spent one summer as Student Secretary of the Y.M.C.A. in Mukden, then in 1929 went abroad. There followed two years of intensive training at Scotland's Aberdeen University and the London School of Economics. His interest in cooperation had already taken him on several visits of inspection to Dr. Toyohiko Kagawa's cooperatives in Japan, and in Europe he made a study of cooperation in Scotland, Ireland and the Scandinavian countries.

On his return to China, he was made head of the Student Public Welfare Committee at Yenching University and there he met J. B. Tayler, the veteran British cooperator. This led to his taking the leadership of the North China Agricultural Research Union, which successfully organized cooperatives in Hopei Province up to the outbreak of the war in 1937. Lu then spent several months in Shanghai working with the Agricultural Adjustment Commission. It was at this time that he assisted in founding the Chinese Industrial Cooperative movement.

Lu is considered a first-rate organizer and has had better background in cooperative leadership than any of the others on the C.I.C. staff.

C. F. Wu has already been introduced in the chapter on the Bailie engineers. He has provided the indispensable technical brain for the Northwest and his improvisations and minor mechanical inventions are the marvel of the region. For example, he introduced the first workers' shower-bath in the place—a gravity-fed arrangement made from gasoline tins and their boxes; devised the first water-wheel to power a big machine shop; invented a scheme for making needle eyes for weaving machines which had to be bought from Japan formerly at a cost of \$15 for 500—Wu's are made locally for practically nothing.

Overwork, bad food and dangerous living have ruined his health in the past months, but Wu is still enthusiastic and cheerful though he has not seen his wife and children for a long time. He and his close friend, Frank Lem, are two of Indusco's most valuable assets, not only because of their technical ability but because of their personal integrity and devotion to the cause for which they have sacrificed so much. Wu's attitude was well expressed to a

travelling Chinese newspaperman, Sung Tze-ti:

“This is a new life,” he said. “When I was in Shanghai I lived a comfortable life and was well paid, but I was often tired. I don’t know why. My mind would darken like a yellow cloudy sky. I had intelligent friends and capable colleagues, but something was missing. I was lonely and felt empty. Everything was going smoothly, only leisure gave me trouble. There is a phrase in the North that describes my condition—‘repairing rottenness’—when my work was over I used to run about at home, repairing everything that was broken. And I used to ask myself, ‘What am I doing this for?’

“Since I came to the Northwest I have visited many places on foot, walking in rain and sunshine. And the further I traveled, the more valuable I found the Northwest. Under a rock may be coal. In a stream may be alluvial gold. Every step you take may yield a surprise. Frankly, I have never felt so useful as in the Northwest. It is really exciting to promote the cooperative movement and associate with the workers. Just think of it! What a great work it is to bring about an intimate relationship between the human beings on the surface of the earth and the wealth underneath it!

“And I haven’t lost my desire for ‘repairing rottenness.’ I do all sorts of things outside my C.I.C. work. I want to repair everything that is rotten here—abouts, houses, ditches, roads and everything. When I came here everything was desolate. But you see this city now, full of modern buildings, hotels, restaurants, silver shops, silk shops. I have watched them all being built since I arrived.”

§. A CAMBRIDGE VOLUNTEER: GEORGE AYLWIN HOGG

In 1939 the Northwest Indusco Headquarters staff were rather surprised to receive a tired and sick young English graduate of Cambridge University, who volunteered to do their publicity work and act as English secretary. George Aylwin Hogg had reached his journey’s end after eight months of travel through the guerrilla areas of North China. Several of those months had been spent in a dirty hut in westend Hopei, fighting for his life against that dread disease, spotted typhus, from which few Westerners ever recover in China. As good measure, he had also had two bouts, with influenza and a case of dysentery.

This enterprising and unusual young man, a nephew of Muriel Lester, the “Jane Addams” of London, had come to China shortly after the War began. He did free-lance newspaper work in Han-

know until that city fell, then decided to make the adventurous trip through the Japanese-occupied areas, as James Bertram and Major Evans F. Carlson had done before him. He had learned of Indusco work while in Hankow and decided to see it in action, walking four hundred miles across the dangerous fighting region from Peking to Sian. Someone stole his watch and camera and his films took a dunking in a river. He received instructions from various guerilla headquarters en route, but not speaking Chinese well was several times lost in the shuffle, as these headquarters move around so rapidly and secretly. The traveller states he was a little surprised to note that the Japanese do not fire across the Yellow River at the Lunghai Railway, though it is in full view of their guns, which he could see at about 600 yards distance. The reason is, of course, that this railway carries Japanese goods into the interior, and even Shensi is flooded with them, including Yen-an, Sian and the strongholds of Indusco itself.

Aylwin Hogg has written many fascinating accounts of Indusco work in the Northwest, which give a picture of life as it is lived there. One of these concerns Mrs. Roosevelt . . .

On January 19, 1939, a *Reuter's* cable flashed the news from Washington D. C., that Mrs. Franklin D. Roosevelt had agreed to be national sponsor for the Chinese Industrial Cooperatives in the United States. Far away in a cooperative village in Shensi a group of Indusco workers read the news in the Chinese press. That was on Sunday, January 21. A few days later the Philippine Clipper was bearing across the Pacific an Indusco-made scarf as a gift of gratitude to America's First Lady. It bears the triangle trademark and the legend "U.S.A." embroidered on one end—made by the excited fingers of Miss Yang Chien-tsen, one of Indusco's best needleworkers, once a poor refugee. Aylwin Hogg was present during the incident and describes it as follows:

A small group was sitting around a charcoal brazier in the bitter winter climate. Suddenly the Chief Engineer, C. F. Wu, a Michigan graduate and trained in the Ford Motor Works, nearly fell out of his chair. He waved the newspaper in his hand and shouted:

"Lo See-fu *P'ai-P'ai* has joined the C.I.C.!" (That's Chinese for Roosevelt Lady, or Mrs. Distribute-these-Blessings.)

The rest of the staff heard the noise and came in from outside. Mr. Wu expounded at length on the meaning of the good news. Then he dived into his suitcase and brought out a songbook, and the meeting enthusiastically started to celebrate with American songs—The Stars and Stripes Forever, Dixie Land, Yankee Doodle,

After this they went out *en masse* to enjoy a festive banquet on *chao-tze*, or mince meat dumplings.

"We can't let Lo See-fu *t'ai-t'ai* distribute *all* these blessings," remarked the quick girl from 18-mile Depot, where funds contributed to Indusco are giving hundreds of flood refugees a living. "We must send her something."

That raised a question. Chopsticks poised midway in their flight. Could Mrs. Roosevelt do with a cake of soap or a candle? A block of ink or a shoe? Face cream made from peanuts? Vegetable oil for her bicycle lamp? Iron shoes for her horse? A towel or a toothbrush? The C.I.C. produces only the barest necessities—no luxuries.

"So what?" exclaimed the Chief Engineer, ever to the fore with his Americanisms. "Don't we have a silk weaving co-op that puts out seventeen thousand and five hundred yards of silk a month if it puts out an inch?"

"But it isn't half so good as what she could get in Washington," said the girl from 18-Mile Depot.

"That's right, it isn't. (But it's from us. That's what counts."

The whole assembly adjourned to the silk cooperative to choose the finest piece. It was crimson—the kind of silk Chinese brides wear on their wedding day. This very bright red was considered not suitable for a dress for America's First Lady, so they decided upon a scarf.

Next day when the dozens of women who do homework for the C.I.C. in making army blankets came in from the 18-Mile Depot to get orders, they heard the story. Soon it was all over the Northwest through the grapevine telegraph.

Miss Yang Chien-tze put in her last stitches that same afternoon. A special messenger rushed the scarf to Sian to catch the plane that would connect with the Philippine Clipper in Hongkong.

Of the 6,000 women refugees working in the Northwest co-operatives, many have lost their children and husbands through bombs and shells supplied to Japan by Americans. They had begun to think the world had forgotten about China. Mrs. Roosevelt's gesture in sponsoring the Industrial Cooperative movement in America has won their hearts, just as her progressive work during the past eight years has endeared her to the majority of Americans.

6. KANSU AND J. B. TAYLER

By 1940 the Northwest Headquarters had spread its chain of productive activities eastward to the front-line and guerrilla regions in north Hupeh, south Honan and south Shansi and was reaching

into Japanese-occupied areas in Hopei and Shantung, while taking care of Hopei flood refugees in Shensi. To the west, it had a flourishing center in Kansu and representatives in Ninghsia, Sinkiang and Chinghai (Kokonor). In March, 1940, the Governor of Chinghai telegraphed urging extension of Indusco work to his province and sent a contingent of 25 students to the organizers' training class in Shensi. In the meantime, industrial cooperatives had spread throughout Shensi, including the 8th Route Army Border Region. The front-line units will be discussed in a separate section.

In Lanchow, Kansu, J. B. Tayler has been the leading organizer. This fine type of English missionary, and well known cooperative expert, over fifty years of age, has been working on rural cooperatives for a number of years in China and has trained many organizers in the work. Formerly connected with Yenching University, the Japanese occupation of Hopei was a cruel end to all his excellent cooperative activities in that province, just as it destroyed the progressive Tingsien Experiment of James Y. C. Yen, which was financed with Rockefeller funds. Mr. Tayler is connected with the Kansu Science Institute in Lanchow, which experiments in wool, and he has done invaluable work in building up the Indusco woollen industry. He was delighted to learn from Alley of the plans to inaugurate the industrial cooperative movement while home in England in 1938, and hurried back to China shortly afterward. He has often expressed his hope that China would become a great cooperative commonwealth.

Kansu is the principal center for wool in the Northwest, but it also has cooperatives making alcohol, paper, furniture, leather, and doing machine shop work, printing, leather tanning, and mining. The Lanchow population has increased from 40,000 to double that figure since the war and it promises to become a thriving city.

From March to December, 1939, the C.I.C. set up 115 societies in Lanchow, with a capital of \$300,000. Twenty-one provinces were represented in the membership. Two Supply and Marketing Stores brought modern business methods to this backward region, and a modern touch to the skyline.

The Mohammedan population of the Northwest provides a complicated problem, which cooperative industry may well help to solve. Civil wars between Moslems and Chinese have been going on for generations, yet they are working well together under the Indusco triangle. Alley described one of their religious cooperative enthusiasts during his trip to Lanchow in November, 1939:

"Chinese Mohammedans call their Mullahs '*Abun*'. This old

wrinkled Muslim organized a Mohammedan fur-curing cooperative, knowing that his people could not earn an adequate living working for private enterprise.

"The cooperative wanted to buy a stock of skins, but their capital was small when the work was started. The Bank of China offered to advance the sum if the skins were deposited in its godowns pending use. However, old Ahun thought this was a reflection on his honesty, and indignantly refused; in fact, he was almost prepared to disband his members. But the C.I.C. organizer was very patient and finally managed to convince him that this was an ordinary way of doing business, and so the work went on.

When we visited them, the old man was busy beating skins outside the cooperative—the dirtiest job of all. Never mind, he said, the whole cooperative bathes every day. He hopes that the C.I.C. will go into Mohammedan territories and organize them, and he thinks if that is done there will be no more trouble in the Northwest."

IV. SECOND AND THIRD LINES OF DEFENSE

1. THE SOUTHWEST AND SOUTHEAST

Most of the cooperatives in the Southeast and Southwest Headquarters are in the middle of the three-depth "Indusco Line." That is to say, between the front and the rear, though many of the factories are not far from the fighting zone, and several in Kiangsi and Hunan have to be evacuated, as well as Wanhsien in Szechuan.

I shall not tell the story of these headquarters in detail, as it parallels the development in the Northwest. The Southwest was the second headquarters to be started, followed by the Southeast, then Szechuan-Sikong and Yunnan.

Frank Lem organized the Southwest Headquarters in Hunan early in September, 1938. There he put up a remarkable struggle for several months, surrounded by bandits, war conditions and other troubles. Reports from Alley at this time never failed to mention Lem's good work: "Lem is really putting up an epic struggle. He was shot at by soldiers when he was evacuating co-operatives—dashes over the country and salvages industry in the face of all kinds of odds. He is great stuff."

About this time Changsha, the capital of Hunan, was evacuated and burned, and Lem rushed about to buy and salvage machinery for his infant cooperatives, wailing for lack of capital to get hold of valuable equipment before Japanese occupation. In January, 1939, he had a chance to get hold of a very profitable match factory big enough to employ 2,000 people, and set up a pathetic cry for the money—\$10,000 for the machinery, \$50,000 for factory's accumulation of raw materials and \$8,000 for evacuation. In the end he got money to negotiate the purchase, and moved the factory to a "safe" place. But, as is the fate of all big factories sooner or later, on November 7 Japanese planes destroyed most of the buildings. The 307 members lost all their simple belongings (they lived on the premises). Yet a week after the bombing they resumed work and said the place would be restored "within a month."

Lem got many prizes from the doomed cities, however—a big toothbrush factory, for instance, and a \$10,000 medical cotton factory which was soon producing 200 pounds daily and supplying

the whole needs of the Red Cross in that region.

In March of 1939, Lem also performed a heroic feat in organizing the successful removal of seven factories from one bombed city under dangerous conditions. Alley wrote of Lem at this time: "This is a major victory in the fight to establish China's modern industrial great wall."

Hunan is famous for its daring bandits, brave soldiers, enthusiastic Reds (now migrated to the North) and revolutionary women. Lem came into immediate contact with the first-named. One of his depots could not get raw materials because of the surrounding bandit zone. A member of the pen cooperative was killed when he ventured out, and two organizers were robbed. Lem and others had narrow escapes.

Two months after his arrival in Hunan, the dynamic Lem had 13 cooperatives in operation. By early 1940 there were 170 with a capital of \$500,000 and a monthly production of \$500,000.

Kwangsi Province was cut out by the Government for the development of private industry, and in 1939 had only six cooperatives, and one large training school at Kweilin. The 1940 C.I.C. budget, however, allocated \$365,500 to set up a large center near Kweilin and 76 other units in Liuchow *hsien*, including twenty different types of industry.

Kweichow is also projected as a sphere for private industry, and local authorities have not welcomed the C.I.C. there, though a wounded soldiers' center is being started in Kweiyang, in collaboration with Dr. Robert Lim, the splendid head of the Chinese Red Cross.

In 1939, Lem turned over the office to C. K. Tan, another Baillie engineer (graduate of the University of Cincinnati), and proceeded with his broader duties as Chief Engineer of the administration. The Southwest plan for 1940 included the creation of 529 societies with a budget of \$2,184,900.

Alley personally organized the Southeast Headquarters in Kiangsi in October, 1938, with \$200,000 loaned for this purpose by the Bank of China, and contributions from overseas Chinese. He has taken a special interest in this region, because of its rich natural resources, particularly minerals, and because no other industry exists to compete with the new movement. He was right in his judgment, for by April, 1940, 500 cooperatives had spread from Kiangsi to four surrounding provinces under this Headquarters—Fukien, Chekiang, Kwangtung and Anhui. Monthly production was \$1,000,000 a month on a capital of \$1,200,000, and four banks had just released a new loan of \$1,000,000.

Kiangai has had the most difficult time of all, due to the character of the old regime. It had been the scene of bitter civil war and all progressive new ideas were suspect by the landlords who had reconquered the province. For one thing, there was trouble over the low C.I.C. rates of interest. Loans to the farmers by the grafting gentry were sometimes as high as 30%.

Eight first-rate engineers, however, have made this headquarters a thriving industrial center. Less than a year after starting (July, 1939) 132 societies were registered and 148 were operating, while 115 more were being organized. A staff of 97 managed the 17 depots. Value of production was \$316,451 and membership totalled 1,967, though 16 societies had not yet reported.

The following analysis of the work was given in the July, 1939, report from this Headquarters:

Classification	Cooperatives		Membership		Approx. Value of Production to July 1st	
	No. of Societies	Percent of Total	No. of Members	Percent of Total	Value	Percent of Total
Sewing and Weaving ..	39	29.65	549	27.91	\$ 88,276	27.65
Foodstuffs ..	18	13.63	310	15.75	38,633	12.09
Metal Working	10	7.58	251	12.76	66,859	20.43
Educational Supplies Pa-per, etc. ..	16	12.12	214	10.87	28,329	8.87
Chemicals ..	11	8.33	212	10.77	33,040	10.90
Building and Building Materials ..	12	9.00	158	8.03	10,867	3.40
Mining ..	5	3.79	98	5.00	8,922	2.79
Transportation	4	3.03	45	2.29	633	0.19
Electricity ..	1	0.75	8	0.41	1,869	0.58
Others ..	16	12.12	122	6.21	42,023	13.10
Total ..	132	100.00	1,967	100.00	\$319,451	100.00

Marketing and purchasing are well organized, and education, mining, rehabilitation of wounded soldiers etc. are described in separate chapters.

The Kiangai machine shop is one of the best in the C.I.C.: "In the machine shop drafting room, a staff of seven members, all

graduates from universities or technical schools, help in planning, designing and improving the products of the machine-shop. They also make blueprints of all new machines that come in, so that before long it should be possible for the machine-shop to reproduce any necessary machinery."

In the spring of 1940, Indusco organized a "Factory Evacuation Committee" in a southeastern port, whose first job was to have fifty tons of machinery dragged across the province by the new workers recruited for the interior. All transport had been commandeered by the military, and the workers had to drag their wagons over the rough mountain roads and tug at tow ropes up the river. This machinery included one machine shop, two printing plants, two uniform shops and a shop for making army helmets. The Committee plans to take in 300 tons on its next attempt, and eight other expeditions will be made, as soon as funds are available.

Kwangtung and Fukien are the homes of most overseas Chinese, so these provinces are of special interest to them. They have been supporting enormous families there for two generations, so the C.I.C. has received special contributions from overseas for these regions.

By October, 1939, there were 20 cooperatives in Fukien and by 1940 about 40. Charles Wong established a machine-shop with an 18 horse-power charcoal burning engine, converted from an old Diesel engine salvaged from the Fukien coast. This shop now produces rice-milling machines, oil presses, weaving and spinning machines, button making presses, soap cutters and frames, metal moulds for glass bottles and composite printing press rolls etc. (It can also make hand grenades, if desired.) A sawmill, with the same type of engine, is functioning, and Depot F-1 includes cooperatives for sugar refining, paper, oil paper, iron founding, blacksmith work, cotton carding, spinning, cigarettes, printing, ink, pens, chalk and educational supplies.

The provincial Governments of both Fukien and Kwangtung have encouraged Indusco work. In Fukien Dr. Francis Chen, Chief of the Rural Cooperatives, has cooperated. In Kwangtung, Madame Li Han-hun, wife of the Governor, has taken a special interest.

Kwangtung is one of the most progressive provinces in China, and there was considerable modern industry in Canton before the Japanese took it over. In 1939 the C.I.C. planned to set up 188 cooperatives with \$549,100 in capital. By November there were four depots with 42 cooperatives, and presently a mushroom growth of many more, including 15 paper-making units and others pro-

ducing leather goods, uniforms, flour, foodstuffs, sandals, straw hats, cigarettes, tailored goods, mats, lime, etc. One cooperative in northeast Kwangtung makes glass ware out of old glass scrap, the glass-blowers having been rescued from Swatow. It has filled an order for medicine bottles, as well as ordinary glass products. A tinware unit uses old gasoline tins to make oil lamps, funnels, soap containers, etc. An attempt is being made to get the skilled lace and embroidery workers out of Swatow so they can set up in their own cooperatives. In July, 1940, the Kwangtung Provincial Bank granted a loan of \$2,000,000 for the province, so work will now progress rapidly.

Anhui is in the heart of Japanese-occupied territory, but a vitally strategic region for China still. Work was started early in 1939 both in the north and south of the province. This is described in the chapter on front-line industry.

2. THE INDUSCO REAR

Szechuan in the far west is the seat of the Chinese Government, with its capital at Chungking on the upper Yangtze River. Here is the administrative office of the Chinese Industrial Cooperatives, under Dr. H. H. Kung, K. P. Liu, Hubert S. Liang, Rewi Alley and Frank Lem (though the latter two spend most of their time in the field).

The "Indusco Rear" consists of Szechuan, Sikong, Yunnan, Kansu, Kweichow, Ninghsia, Chinghai and Sinkiang, though little has been done except in the first mentioned four provinces, and Kansu is described under the Northwest Headquarters. Szechuan-Sikong and Yunnan form two separate Headquarters.

The Szechuan-Sikong or "Chuan-kong" Headquarters, as the Chinese call it, was organized early in 1939. By April there were 100 societies. By May of 1940, over 450 societies were operating on a capital of \$2,000,000 with monthly production estimated at \$1,500,000. Banks are supporting Indusco here and capital seems to be available. Most of the troubles are political.

Chengtzu is the "model" center in Szechuan. This is largely due to the excellent voluntary cooperation received from American missionaries and university people, such as Lewis S. C. Smythe, Charles Riggs, E. R. Lapwood and others. From February to May, 1939, Chengtzu organized 21 units with 224 members on a loan of \$31,275. As of April, 1940, this depot administered 51 nearby units with about 500 members and 512 employed piece workers, as well as 198 apprentices training for membership. Loans totalled \$249,435 and monthly production exceeded \$100,000. Chengtzu

sent 40 different products to the C.I.C. Exhibition in 1939.

The Yunnan Headquarters was opened in Kunming in February, 1939. Under the competent direction of P. P. Mao, one of the Bailie engineers, work has gone ahead slowly but well. By April, 1940, there were 30 cooperatives operating with a capital of \$60,000, producing \$20,000 worth of goods monthly. Products include pine oil, flour, silk, alcohol, bamboocraft, as well as the usual printing, weaving and tailoring units and a machine shop. An electrical stocking factory is an unusual feature.

Mr. John B. Foster, an American missionary who says he caught the C.I.C. contagion from Alley in the early Hankow days, has done much to assist the work in Yunnan. Here is one of his stories of the Tali Depot:

"The cooperative making of trunks was organized on August 16 with seven members, the minimum allowed. Two of these seven are women and one is the head of the Examination Committee, consisting of three members, whose duty it is to criticize the Executive Committee, also consisting of three members. In this way democracy and honesty both are attained. All of these members had been unemployed for three years, though one of them was head of the Tali trunk-makers' guild. With a loan of \$1,400 they were able to buy leather, wood, paper, glue and food and set to work. In two weeks' time they had produced 96 big trunks and 96 small ones and set out for Shangkwan to sell them at the *Yu T'an Hwei* (Fishpond Fair), the largest fair of the year in this neighborhood. In three days they had sold all the big ones (at \$40 a pair, slightly below the ordinary market price) and by the end of the fair all but one of the small ones. They said that they could have sold 300 of the big ones if they had had time to make them. Like members of the other cooperatives their wages range within \$8-\$10 National Currency a month (all the members of one cooperative get the same, however), and they are allowed \$5-\$6 National Currency per month for their food. This allows three meals a day and meat five times a month, which is better than the average in this county. Wages are about normal. Meals are eaten in common with one of the members cooking the food in addition to his other labors. No one may work more than eight hours a day and cannot work that much unless he is 20 years of age. No child may work at all until he is 15 and has finished the required three years of primary school. At the end of the year the profits are divided among the members, NOT as in other countries according to the amount of capital in money, raw materials, equipment or what not contributed by each member, but according to work done and one's general efficiency."

V. FRONT LINE AND MOBILE GUERRILLA UNITS

1. INDUSTRY MARCHES INTO BATTLE

Broadly speaking, all industrial cooperatives in China may be called "guerrilla industry". Most of them are small semi-mobile factories, capable of maintaining independent bases after Japanese occupation of the main cities. The vast majority so far established, however, constitute defensive economic trenches in the Rear and Second Line positions of the three-depth Indusco Line.

The Rear, or Third Line, includes the far West and Northwest—Szechuan, Sikong, Yunnan, Kansu, Ninghsia, Chinghai—where the war has not yet extended. Here it should be theoretically possible to install private industry at a profit, and here the minimum danger of Japanese economic penetration exists.

The Second Line includes the remaining unoccupied regions of the Southwest (the rear of Hunan and Kwangsi, all of Kweichow) and the Southeast (the rear of Kwangtung, Kiansi Fukien and Chekiang), as well as most of Shensi in the Northwest. These cooperatives occupy a fairly safe but militarily important position, though some in Hunan and Kiangsi have already had to retreat backward as the front advanced.

In the Rear Line over 600 cooperatives are functioning, and an extensive future plan has been mapped out for Szechuan. In the Second Line over 1,000 units have been created. In the Front Line the C.I.C. has built only about 200 cooperatives.

The Indusco Front Line includes all units functioning in the vicinity of the changing battlefield to supply the armies and population in the war zones. "Guerrilla industry" proper, or "Guerrilla indusco" as it is sometimes called, refers only to the mobile units that carry on maneuvering economic warfare against the Japanese in the guerrilla regions, either behind the Japanese lines or in the fighting zone, some to assist Central troops and some to assist the 8th Route and New 4th Armies and the popular guerrilla movement. In the south the only important Front Line Indusco center so far is in Anhui.

Under the Northwest Headquarters there are six centers operating, four (Depots FL-1, 2 and 3 and G-3) to assist Central Government troops and two (Depots G-1 at Yenian and G-4 on the

Hopei-Shansi border) to help the 8th Route Army and guerrillas. Funds have also been sent to central Hopei (G-1), Shangtung,¹ the Wutaishan region (G-2) and northwest Shansi (G-5), to create units in the heart of Japanese-occupied territory, though reports on this work are not yet available. Desperate appeals for help have been received from guerrilla forces in these regions, who are trying to defeat Japanese schemes for economic domination. Depots G-1, 2, 4, and 5 are under the Northwest International Center, and I shall tell of this special work in a separate chapter, as well as of the Anhui International Center.

Depot FL-1 (Front Line Depot 1) started work in October, 1939, in a town on the Suiyuan-Shensi border near the Great Wall, which is closed to the fighting in Suiyuan. This is a wool center.

In February, 1940, FL-1 had ten cooperatives with 72 members, operating on a capital of \$36,000. Three units do leather tanning and shoe making, one weaves carpets, one makes alcohol and two women's cooperatives do wool spinning and weaving. The three blanket weaving cooperatives are making 10,000 woollen blankets for the 8th Route Army.

Depot FL-2 is in south Honan and Depot FL-3 in north Hupeh. The famous Kwangsi Generals, Li Tsung-jen and Pai Chung-hsi, were in command of this 5th War Area and took an interest in Indusco as soon as they learned of it. Early in 1939, they asked the Northwest Headquarters to start work in this region and particularly at their headquarters in north Hupeh. They promised to help in transferring skilled workers and also to provide some funds, though they have not contributed much money to the enterprise as yet. In May, 1940, an inspector from the Northwest Headquarters paid a visit to these two isolated depots. It took 20 days of dangerous travel with night hiking to escape Japanese troops. Part of the route was open to Japanese artillery and three shells landed within a few yards of our inspector.

Arrived at FL-2 the inspector found that local towns were among the most continuously bombed objectives in the country, though Indusco decentralization had foiled the enemy and none of the units had been seriously damaged. Of the 33 cooperatives only five were in the headquarters town. Others were scattered within a radius of from five to thirty li outside. The town itself suffered from an average of three air-raid warnings daily, and "while I was there we all came unpleasantly near to being casualties owing to a

¹ In 1939 \$25,000 was recruited to start work in Shangtung, though \$100,000 was required there.

plane that dived down repeatedly, bombing and machine gunning a group of ox-carts near where we were hiding outside the city," reports the inspector. Conditions at FL-3 were even worse. There were ten air raids in three days "and on the fourth, an hour after I had left, 32 planes flew over my head to bomb the city, incidentally destroying part of the C.I.C. office. On top of this, the Japanese may choose to advance westward from the Pinghan Railway (as they did at the time of my visit) and bring the war for a time within less than a hundred li. Perhaps it is partly this very sense of emergency that has been one factor in the development of a true co-op spirit in these places."

The important thing in the Indusco Front Line is not permanence but temporary production before retreat is necessary. Even a few weeks or months of work repays the capital invested, in terms of national economic and military defense and saving the people's livelihood.

There were 15 silk weaving cooperatives at FL-2, as this is an important silk center, with 254 members. Share capital amounted to \$4,304 and loan capital (short term at 9.6%) to \$19,000. \$2,000 had been repaid and "other co-ops are all in a sound financial position and will be able to repay when the time comes. Total monthly output is around 110,600 feet worth at present \$123,872."

Three cooperatives made cloth, two made stockings and two made towels, all available for local troops. Their 75 members had paid \$740 in shares and borrowed \$6,700. The Indusco machine-shop made spinning machines with 22 spindles for \$80 each and ran free training courses for the public. The printing works is the best in the town. It puts out an illustrated bi-monthly magazine for the local government and was filling an order for 15,000 school textbooks at the rate of 1,000 sheets daily.

Textile training courses for women (60 had graduated), accountancy classes and machinist training were being carried on.

Lack of loan capital has greatly hampered work here, however. "Out of the 81 co-ops formed and anxious to start work, only 33 have been able to do so." Since May, 1939, 1,043 members had been organized into these 81 cooperatives, with a paid share capital of \$23,068 and loans of \$37,400. Members of the 33 societies in active work numbered about 500. The office staff operated on a monthly budget of \$1,000, of which \$775 paid salaries to 12 technicians and organizers. Director Yu said he was "feeling terribly bad at having to refuse so many applications from would-be-co-operators and from co-ops short of funds to meet running expenses."

In Depot FL-3 (in north Hupeh) "one is even more struck

with the staggering waste of opportunity owing to lack of capital . . . There are 24 co-ops, struggling along on an average of less than \$1,000 each. Six of these are cotton textile co-ops, 6 chemical, ink, soap and candles, 4 paper making, 2 oil pressing, 1 carpentry, 1 flour milling, 1 silk, 1 printing, 1 medicated cotton and gauze and 1 transport . . . FL-3 has a good many refugees, a good supply of raw material from the surrounding district, and a large permanent market for cloth from the army. But at present C.I.C. is prevented from making use of these opportunities, or of fulfilling its role as the support of front line fighting where ordinary factory industry is unprofitable, or unlikely to venture."

It was surprising to find a large training school, which had turned out 229 students, run by the government near the headquarters town, which claimed kinship with C.I.C. "So far the only formal connection between C.I.C. and this school has been an appeal from the latter to help with its promotion funds. But the school educates its students on C.I.C. lines, takes in C.I.C. literature, practices the C.I.C. slogans, and wears an exact replica of the C.I.C. badge."

The inspector concludes: "I come back with the firm impression that this southernmost part of our Northwest C.I.C. Region is one of great possibilities. Judging from what they have already done there under extremely difficult conditions, it seems a fair assumption that given capital and a little more help in personnel from HQ, they would make a roaring success . . . Special funds might be used for educational work and for the preservation of the Chinese silk industry (from America)."

Depot G-3 was started in south Shansi to assist the 93rd Army of the Central Government, under command of General Wei Li-huang and Yen Hsi-shan. The organizer arrived on March 1, 1939, and started weaving, shoemaking, printing, paper-making, coal-mining, sulphur refining and ink-making cooperatives. The town was soon raided by Japanese planes and the cooperatives had to move *five times within five months*, following the retreating army headquarters. Being under the patronage of the 93rd Army, the cooperatives were at the mercy of the military and suffered a good deal of unnecessary interference. In several instances, army commanders insisted on a violation of the cooperative constitution and even threatened to take over the whole organization as merely a branch of its own commissariat. C.I.C. loans were made to small proprietors and several were merely home industry, the members, including only parents, children and in-laws. In spite of all these troubles, however, these 33 cooperatives seem to be thriving as well

as can be expected. The primary objective is to supply the troops with necessities, and though stupid and short-sighted militarists and politicians have not smoothed the path they are glad to have C.I.C. in their midst. The 93rd Army even loaned \$30,000 to the painting cooperative.

This particular region is under the control of a group of small-minded die-hards who have been spending a good deal of their energies recently thinking up plans of taking back 8th Route Army territory to the northeast instead of fighting the Japanese. The result was a series of small civil wars, and in such tension Indusco had difficulty getting organized. The Kuomintang militarists refused to permit any production to expand to any region not directly a part of their base, and forced Indusco to be constantly on the run with them, not from the threat of the Japanese, but merely to serve a kind of commissariat function as "orderly" to the headquarters.

It is said that southeast Shansi has a population of four million and the total expenditure of the various troops stationed there amounts to over \$30,000,000 a year, a good deal of which goes to buy the Japanese goods flooding the region. It would seem that mobile cooperative industrial units could thrive on army orders alone, once well organized. It is planned to start machine shops to repair tools and weapons, and several iron foundries, an ancient local industry.

Only about \$650,000 in all has been allocated for Front Line work, of which over \$400,000 was contributed by overseas Chinese in the Philippines and Java and by Americans and other nationalities in the Philippines for the two "International Centers" in Anhui and the Northwest. The seven depots now functioning and the three planned for Shantung, central Hopei and the Wutaishan region are a very poor start in Front Line activities, so vitally important because of their close connection with the strategy of prolonged resistance. The Government's National Production Conference held in May, 1939, passed a resolution for "the development, growth and continuation of cooperatives and other small industries in guerrilla territory in order to assist the guerrillas in the continuation of resistance against Japan", but so far not more than \$250,000 has been given by the C.I.C. Administration for all front-line regions both in Anhui and the north. Why has this phase been so neglected?

Many questions are involved. There is first of all the Government policy of building up only its own immediate base in Szechuan, Yunnan, Kweichow and nearby. It is difficult to get large Government funds voted for economic activities in other provinces.

Secondly, the bankers and Government leaders hesitate to invest in danger zones and risk losing their capital. Thirdly, China is so poor in economic experts that few of her leaders are far-sighted enough to understand the importance of building up a new war industry at the front, though the statistics on the tremendous waste involved in transportation and importation of war supplies are enough to startle anyone into serious thinking. Army commanders in particular have little economic training, so they have not demanded that industry move to the front to help in the fighting. Underlying all this is the political stalemate in China which handicaps rapid development at every turn. The reactionaries actually try to block help to the guerrilla regions for they are terrified of any kind of a people's movement and of helping the 8th Route Army in particular. Because of these facts front line regions which need industry so desperately are given practically no support, and are therefore falling prey to Japanese economic designs. As a result of the political stalemate, tension in the guerrilla border regions is acute and civil war on a small scale has already occurred.

When one studies over the potentialities of Chinese resistance, it is hard to avoid the conclusion that only about 20% has actually been utilized during the war, partly due to inertia and partly to the political stalemate that checks every popular movement as it rises. For example, in Anhui, Shensi and Shansi local militarists have refused to permit machinery to be shipped into the guerrilla areas for Indusco work. The 8th Route Army, which is responsible for breaking enemy communications in north China, has had no source of high explosives for demolition work. They tie hand grenades together for land mines and painstakingly tear up miles of railway track, but the Japanese resume the traffic in a few days. Three times they tried to purchase a sulphuric acid and nitric acid plant (to manufacture nitroglycerine) that had been idle in Sian for two years, but were refused on political grounds. When overseas Chinese and Americans abroad learned of this dog-in-the-manger situation, they raised \$8,000 for the C.L.C. to buy the plant. One American businessman decided to give US \$500. The fate of these new negotiations has not yet been determined.

Foreign contributors sent a fund of \$25,000 to start a co-operative for making hand grenades on the Shansi front, having learned that these were badly needed. Local militarists refused to permit this and the idea had to be dropped, in spite of the fact that all the necessary raw materials for making hand grenades are available in abundant quantities in Shansi and the cost is surprisingly cheap, less than fifty cents apiece. The Army sends grenades from the rear at

a cost of \$2 each only for transportation. Worst is the fact that a certain commander had a monopoly on the sulphur trade and was selling it regularly to merchants in the occupied areas where it was re-sold to the Japanese!

At the present stage of the war an economic counter-offensive in the occupied areas has become a military necessity and "guerrilla industry" could serve several vital purposes: (1) to provide necessities for the guerrilla forces; (2) to maintain a Chinese market in the villages behind Japanese lines in order to absorb raw materials which will otherwise go to Japan and provide the population with commodities. Such industry would enable rural areas adjacent to Japanese garrisons to resist economic conquest. It is precisely this possibility of the Indusco mobile industrial units that makes the program unique in the history of industry. It is an attempt to rebuild a nation's productive power on the battle field of the war itself.

During the first two years of the war many armies in the north were obliged to use Japanese cloth for their uniforms! This was true of Teng Pao-shan's troops and those of the 8th Route Army and others. No other cloth was available. The soldiers in other provinces also had to purchase other enemy goods, such as buttons, toothbrushes, enamel bowls, towels, etc.

To build up economic self-sufficiency in occupied areas is going to be very difficult. As Meng Yung-chien, C.I.C. Inspector for Guerrilla Industry, has stated: "It is clear that our cooperative products are not in a favorable position to compete with the enemy goods on the market, unless we secure the close collaboration of the army, the government and the people and launch together a counter-offensive on the economic front, unless we can with their full support actually and systematically boycott enemy goods and institute a kind of economic counter-blockade. Hence it is to be realized that we are going to face tremendous odds. Here I am inclined to emphasize that full support of and close collaboration with the Central Army are quite necessary. Granting such, I believe we shall be able to drive out the Japanese, trade by trade, and district by district. If we prove to be successful on the front, then the question of ousting enemy goods from the rear will become comparatively a simple matter."

Another writer, Lin Feng, comments on the situation in North Shensi:² "There is no market for raw materials locally. Hence traitor merchants are selling them to the Japanese. Exports of

² "Economic Crisis in Shensi", *The Northwest*, Yenching, September 1, 1939.

Shensi formerly included cotton, tung oil, paint, and furs. Since the outbreak of war, communications are interrupted, and there is no way to transport these goods to our own markets.

"In Shansi no local markets can be found for coal, for example. Nine districts in south Shansi, still under guerrilla control, formerly yielded seven million *piculs* of coal yearly. Because of transportation difficulties, little can now be sold except to the Japanese. This same region annually produced over 400,000 *piculs* of iron."

In the meantime, the Japanese are trying to make good use of their time in the Shansi region under occupation. A *Domei* report from Taiyuanfu, March 31, 1939, states:

"Part of the Yen 127,000 net profit earned last year by 21 factories and coal mines which are being operated under Japanese military custody in Shansi province will be distributed among civilian trustees who are managing the properties, it was revealed here today.

"Consisting of spinning and flour mills, tobacco, match and cement manufacturing plants, and coal mines, these industries are a part of 46 factories and enterprises in Shansi province which are being rehabilitated under the supervision of the Japanese military."

Aside from strategic reasons, the front line and guerrilla regions are the scene of the most desperate refugee situation, including flood as well as war victims. Recently many displaced villagers and workers are returning to their old homes, being unable to survive in Free China territory. There are many obliged to work in the interests of the Japanese on farm or in factory. More Chinese industrial workers are employed by the Japanese in the cities than by the Chinese today.

The 8th Route Army and all guerrilla leaders are extremely anxious to combat Japanese economic aggression, but they are totally without capital. Local capital has fled. Unless Central Government or banking and private loans and contributions are extended, development is practically impossible and Chinese financial control will collapse utterly. Reviving the confiscation of landlord property might help solve agrarian distress, but even this would not provide capital for industrialization. From this point of view, if the Central Government and the foreign powers wish to avoid a revival of Sovietism in China, their best safeguard is to give immediate financial help to the 8th Route Army people, particularly for a "middle way" cooperative movement.

Both militarily and economically the guerrilla regions, at the front and in occupied areas, are now the key strategic points of the war. If Japan succeeds there, China must decisively lose the war.

and the rest of the country must inevitably come within the orbit of Japanese conquest.

2. AN EXPERIMENT IN THE ACTUAL UNIFICATION OF CHINA

Ironically enough, the importance of raising funds to build guerrilla industry was first appreciated in the Philippines. Two months after the first Indusco unit was started, patriotic overseas Chinese in the islands sent \$60,000 to the C.I.C. to start a center in the occupied regions of Anhui. This was followed by \$20,000 more from the Chinese Anti-Enemy Association to establish a machine shop. By 1939 the Philippines had contributed to this center a total of Ch. \$88,295.03 plus U.S. \$1,126.25. This fund was earmarked to help the New 4th Army guerrillas in Anhui and the sponsors requested the C.I.C. to organize the work, which was accomplished only after much difficulty.

It was decided to call this the "Anhui International Industrial Cooperative Center", the idea being that persons of all nationalities in all countries should contribute to the work as a gesture of support to the United Front in China and as an experiment in cementing the unification of the country and preventing future political conflicts and civil wars between the Right and the Left. The notion originated among a small group of Americans in Baguio, a little gold-mining town high in the mountains of Luzon. A local drive led by a diminutive but energetic American lady from Boston, Mrs E. E. Crouter, netted U.S. \$800, enough to give jobs to over 100 refugees at \$7 each. Within six months some 92 individuals had contributed, representing Americans, British, Chinese, French, Filipinos, Indians and Italians, as well as a group of 100 Igorot tribeswomen. Indusco sympathizers in Manila became interested in this unique idea. The Philippine Congress for Democracy and Collective Security started a drive, and the Philippine Association for Industrial Cooperatives in China earmarked half its contributions for three months to swell the "International Centers" Fund. By this time another International Indusco Center in the Northwest was being planned to build up cooperation with the 8th Route Army guerrillas. Funds raised by the international community in Baguio and Manila were concentrated to create "Pioneer Units" in both Centers.

Since the Anhui Pioneer Unit Fund was started in Baguio in early 1939, many groups and individuals interested in the future of China have become seriously interested in building up this form of economic cooperation between the Central Government and the 8th Route and New 4th Armies as a means of cementing the pre-

carious unity of the Chinese. These include conservatives who do not want to see the Left pushed toward Sovietism in China again, progressives, liberals, missionaries and overseas Chinese, as well as individuals who merely think their money will be put to better strategic use by these guerrillas than elsewhere. There is a definite possibility that a common economic program along the lines of co-operative industry may prevent a future civil war in China, as in the meantime it encourages the present democratic tendency to move forward and helps the development of all regions through internal peace and reconstruction.

The Anhui International Center is the most isolated of all Indusco depots. Situated above Shanghai near the Yangtze River, it is right in the heart of the fighting zone in "Japanese-occupied" territory. The nearest headquarters is 700 miles distant, and it sometimes takes months to get communications through the dangerous intervening enemy lines. Machinery has to be smuggled in from Ningpo or other cities by career—the machine shop arrived by relays in this informal manner. The complications are commensurate only with the extreme need, however. The area is one of the most economically strategic points in all China, as well as the scene of tragic refugee conditions and urgent supply requirements. The International Center has caused the C.I.C. administration a heap of trouble. The marvel is that it was ever started at all, and the achievement shows that Indusco activity is possible in any danger zone. In the beginning, local reactionaries refused to let any cooperatives be started to help the New 4th guerrillas. Part of the money was used to start units for Central troops instead, though they have been requested to pay back this "loan" as soon as possible. The result, however, seems to be working out fairly well. Indusco units to help the Central troops were started first and finally spread to the New 4th villages. The three depots include cooperatives for both the New 4th and Central armies, therefore, and are an "inter-political" center as well as an internationally supported one. A fascinating experiment, really, in view of the constant tension between the two sides.

At the special request of the overseas sponsors, a not unheroic Indusco organizer made the long, hazardous journey to Anhui in the spring of 1939, carrying the funds through bandit zones as well as enemy lines. A school was first set up to train organizers and accountants.

The Southeast Headquarters has drawn up an initial budget for Anhui, calling for the modest sum of \$554,600, to establish eight depots. \$50,000 was given by the Government in 1939 and

other funds and contributions were forthcoming later. Local resources were sufficient to produce forty different kinds of products, according to this survey.

Chief Indusco organizer in Anhui is Meng Shou-hsin, formerly of Yenching University, an experienced cooperator attached to the Southeast Headquarters. Assisting him in the field is an interesting personality with a colorful cockney vocabulary, Reggie Shen, who was born in London, his mother being Irish. Alley secured a position for him with the Shanghai Municipal Council, where he was commended for special gallantry after saving the lives of a number of people in a fire. When the Japanese won at Shanghai, he resigned his job and enlisted with Alley to help start the Indusco movement. He possesses a high degree of that improvising ability which is so essential in adapting industrial methods to interior conditions and is responsible for many innovations. Alley says he "has definitely creative genius." He personally recruited skilled mechanics and machinists in Shanghai to start the Anhui machine-shop. He received good technical training in London and has had several years' experience in Shanghai factory inspection work. He is "a bit of an artist", too, and designed the C.I.C. poster now well-known in China. Reggie is intensely patriotic and delicately refers to all who deal in Japanese goods as "swine". "The corrupt are bringing in enemy goods by the ton," he reported from Anhui. "Although the nearer you get to the front the more support we get. . . . We held a meeting with the students of the school and gave stage plays and speeches. This was attended by 3,000 persons and the cheer after the speeches sounded like the roar of the sea."

Reggie is quite enthusiastic about Anhui in spite of his troubles and says, "I myself think that work in this area can be brought to a standard better than that of any other section of the C.I.C."

In July 1939 Reggie reported that five cooperatives were operating. First organized was the uniform-making unit with \$2,000 capital, which consisted of seven members, all refugees from Hangchow, surplus income being \$250 monthly. "One was formerly a Shanghai worker—his cutting is better than that of local tailors, therefore they are enjoying good business. All these workers are very eager to learn new ways of living. On the anniversary of 8/13 they gave a meeting at their co-op which was attended by two hundred people. They gave lectures on how they joined C.I.C. and the benefits it has brought them. Then they gave the crowd confectionery and cakes. This was all paid by themselves. They all wear uniforms and the badge. I have much hope for the future of these workers. Production per day—20 suits of uniforms."

Next came a shoes and leather-goods co-op with \$2,000 capital. "Seven members—refugees from Hangchow. This co-op has only just started but it is estimated that they can earn \$100 monthly. Production per day: 40 leather belts, 2 leather knapsacks, 4 pistol holsters, 5 pairs of shoes."

Reggie calls his third the "Refugee Co-op." "This is mainly to assist refugees who have no profession at present and it is run by the staff, because these people have to be taught that they can be an important factor in the building of a New China and that they are as good as any other swine. At present they receive 15 cts. per day, including chow. Money that is gained on goods manufactured is divided into maintenance, salaries and fees. At present they have no faith in any organizations whatever so we are nursing them but as soon as they can manage themselves we will hand over to them, and form normal cooperatives. We have \$1,000 invested. Members: 23 sandal and shoe workers, 1 cobbler, 2 tarpaulin and raincoat workers. Output per day 20 prs. of sandals, 20 prs. cloth shoes, 20 raincoats, army type."

The rice milling cooperative started with \$800. Its 7 members make a monthly profit of \$50 and mill 30 bags daily. "The members consist of very poor peasants and one thing that amused me much was when making out the necessary documents every man had to make a chop. They were so pleased to possess a chop, having been used to using their finger print as a mark. These men listen diligently to everything I tell them."

A unit to make batteries for flashlights, etc., was also among the first five, started with \$2,000.

It is fantastic when one realizes that each of these cooperatives were started with less than U.S. \$150.

By the middle of October, 15 cooperatives were functioning, including the much-needed machine-shop to make tools and machinery and repair arms.² "I have completed the printing works and soon we will be able to supply the whole of Anhui," writes Reggie. Others included cooperatives for carpentry, painting, stocking knitting, silk thread making, umbrellas, rattan goods, condiments, masonry, educational supplies, boat-building, brass-ware, pottery, soap and candles etc. Since then twice that number have been created. Local troops are being supplied with all kinds of

²This machine-shop, carried from Shanghai with great difficulty, was originally intended for the New 4th Army, but owing to difficulties was started on the Anhui-Cheking border instead. The \$20,000 sent from the Philippines for its purchase will be repaid to the New 4th account; it is promised. It has "mobile small-arms repair units" which travel to the army headquarters.

clothing, tarpaulins, alcohol, medical cotton and gauze, straw hats and iron products. The hemp and tung oil industries are of special importance. All kinds of waterproof articles are being made, while medical cotton is improvised from the ramie fibre.

The total number of cooperatives in Anhui Province has not been reported since 1939, but in May, 1940, a report was made on Depot G-6, the special Pioneer Unit intended for the New 4th Army, sponsored by the Philippines. According to this, work started in November, 1939, and ten cooperatives were functioning capitalized at \$20,584.00, with 144 members, though not all of them served the New 4th Army. The three cooperatives for making *suau* (bamboo) and coarse paper and *suau* pulp sold most of their output to the New 4th printing shop. An alkali-making unit capitalized at \$2,000 provided chemicals for the paper industry. The women's spinning unit furnished yarn to a towel-weaving cooperative composed of New 4th crippled soldiers. One cigarette-making unit provided 20 crippled New 4th soldiers with jobs, capitalized at \$2,000. Another cooperative for making stationery, ink, paste, etc. was made up of New 4th disabled soldiers, capitalized at \$1,500. A ramie-bag unit made sand-bags for defense purposes. A transport cooperative of thirty carriers transported goods to and from the front lines.

Literacy classes and classes in cooperative training and accountancy are being conducted for members and a weekly mimeographed bulletin is printed. The Depot-master, Chiang Chuan-yuan, is an electrical technician from Shanghai and was formerly head of the Red Cross Transport Units in this region. Assisting him is Miss Hao Wei-wen, a 28-year old schoolteacher who is on leave from the New 4th Army to manage Indusco work.

It was planned to start 17 new cooperatives with 196 members, for which \$41,300 was available. The New 4th Army moved most of its people across the Yangtze River in April or May, and have asked that a new depot, G-7, be started for them there, requiring \$100,000 for initial capital.

Indicating the importance which the guerrilla forces attach to the C.I.C. General Yeh T'ing, Commander of the New 4th Army, wrote the following letter of thanks dated October 10, 1939:

"Friends of the International Cooperative Centre in Anhui:

We are most grateful for your frequent contributions to help build industrial cooperatives in the guerrilla areas of South Anhui. Your kindness will not be forgotten.

The Industrial Cooperative Center in South Anhui is of im-

portant assistance to us. These industries bring relief to the refugees in our areas, by giving them productive work to do. They help us to utilize native raw materials and keep them out of the hands of the enemy. By this means we can oppose the penetration of enemy goods, and a state of self-sufficiency is made possible. The whole population of southern Anhui thus benefits.

Taking advantage of the present world crisis, however, the enemy is strengthening his 'consolidating' operations. It becomes daily more difficult to continue our struggle in the enemy's rear. In order to maintain protracted guerrilla warfare we must develop to the greatest possible extent industrial and other cooperative enterprises to strengthen our own base. We take this opportunity to appeal to you for further funds to help this work, which combines benefits to the people of southern Anhui with support for our war of resistance. Recognizing justice as you do we feel sure you are anxious to see the Chinese people win victory in their war of liberation.

We trust that this appeal will meet with your support and response. If we should be so fortunate as to receive further aid from you we request that you kindly send such contributions through the Chinese Industrial Cooperatives, earmarked for use in our C. H. Headquarters, South Anhui."

The money sent to C.I.C. in Anhui is pathetically small but it is a start, and the organizer reported that it will become a very successful center. Many skilled workers from Shanghai have migrated to this region so good use is made of their abilities. The refugee problem has not been touched, however. In a statement on "The Need for Chinese Industrial Cooperatives in Front-Line Areas," the Hongkong Promotion Committee reports:

"Last autumn, an American journalist gave a heart-rending account of south Anhui and north Chekiang. Not only were thousands of people lacking medical care, but more important, they needed a way to keep alive. Of 3 hsien investigated, only 1 per cent of the 50,000 registered refugees were getting any kind of relief at all. The others seemed to be waiting to die. Yet, as this reporter wrote:

" 'All hsien visited, except the northern part of Szecheng, are rich in bamboo and other timber, oil seeds, tung oil, rice, wheat, beans, cotton and silk; they also have water power. Szecheng has been looted of its rice. The other places not. Small industrial cooperatives could utilize and develop the natural resources and give employment to thousands of refugees, but it will be some time before they are adequately developed.'

"The same can be said of other areas. Last summer a foreigner

walked from Peiping down through western Hopei and Shansi to the Lunghai Railway. In Hongkong on his way back to Peiping he told the same story. He had talked with army men, village magistrates, schoolteachers, and so on—all told him that the need was for small industries so that the people could get goods."

3. THE NORTHWEST INTERNATIONAL INDUSCO CENTER

Having done their duty by Anhui in Central China, the same sponsors in Baguio decided to start collections for another Pioneer Unit in a Northwest International Indusco Center. In early 1940 Ch. \$25,440.89 was contributed, representing the Baguio and Manila committees of the Philippine Association for Industrial Cooperatives in China, the Baguio Chinese Anti-Enemy Association and the War Photos Exhibition sponsored by the Youth League of the Philippines, the Friends of China, the League for Defense of Democracy and the Philippine Chinese Women's Relief Association.

The sponsors requested the C.I.C. to start this Pioneer Unit at Wutaishan⁴ to help right at the fighting front. An organizer was sent, but local military authorities refused to permit any machinery to be shipped in, so this idea had to be abandoned temporarily. Later on the Philippine Pioneer Unit sponsors sent U.S. \$2,447.69 to start the D.F.E. Cooperative Technical School for Hsiao Kuei, together with over Ch. \$90,000 for a basic chemical industry and machine shop, for G-1.

This International Center is progressing, however, as overseas Chinese in Java, the Philippines and elsewhere contributed an additional \$200,000 to start "Overseas Chinese Units" in Shensi and Hopei (Depots G-2, G-4, G-5 and G-6) as well as North Shensi (Depot G-1). It is hoped also to extend the work into Chahar and Honan. Funds have also come from other sources, such as \$15,000 from the China Defence League Unit.

This International Center plan will extend from the Great Wall across the face of North China, to all regions controlled by Chinese guerrillas. Over this immense area, two or three times the size of France, Chinese guerrilla authorities are in administrative control except in walled cities and along the lines of communications which are held by the Japanese. Through such a supply system, it is theoretically possible to build up stabilized economic self-sufficiency in time.

The Yen-an Depot, G-1, was started in the early spring of 1939

⁴ This Wutaishan unit, G-2 was again attempted in the summer of 1940, with new contributions from the Philippines.

with a loan of \$20,000 from the C.I.C. Headquarters. In the autumn of that same year, Edgar Snow visited Yen-an and reported as follows:

"Yen-an, as everybody has heard, is the main headquarters of the Eighth Route (recently renamed the Eighteenth Group) Army, and the center of a politico-military administration unique in the world. The Eighth Route (or *Ba-lu-chun*, as it is familiarly known to millions of Chinese) is the largest guerrilla army in China, with armed regulars numbering 200,000 men, stretching from the loess hills of Shensi and the grasslands of Ninghsia northward across Inner Mongolia, southward into Shansi and Hopei, and eastward, through Shantung, to the Yellow Sea.

"Historic Yen-an was the capital of the Chinese Soviets, before the cessation of civil war and the formation of a United Front between Communists and Nationalists in China. It is today the capital of the Shensi-Kansu-Ninghsia Border Government, a special administrative district conceded by Central Government mandate in 1937. Base headquarters of the Eighth Route Army also, Yen-an asserts an unifying influence on the Shensi-Hopei-Charhar Border Government, which is likewise defended by legions of the Eighth Route. Following the abolition of the Soviets, a democratic political system was organized in these two regions, and today they are the only part of China enjoying that form of government.

"Precisely because of that, perhaps, C.I.C. received a warm welcome in Yen-an. From the beginning every facility was extended to the depot. Unfortunately, after an initial C.I.C. capital loan of N.C. \$20,000 to Yen-an, no further financial aid was forthcoming for six months, and growth was consequently limited. Twenty-eight out of 30 cooperatives organized were obliged to close down. Unable to secure support from either Paochi or Chungking, the local Indusco organization, to save itself, appealed for funds to the guerrilla bank—the Border Government Bank, an amazing institution. Capital of that bank, brought together by contributions from students, soldiers, and the people, and from local economies effected by the Government, was very meager. And the N.C.\$35,000 it loaned to C.I.C., representing a large percentage of the bank's total assets at that time, was one of the best tributes ever paid to popular confidence in the fundamental soundness of guerrilla industry.

"With this help, the Yen-an depot had, by September-October of 1939, when the writer visited there, established 15 cooperative factories,⁵ which were meeting urgent local needs. Largest of these

⁵ By June, 1940, this Yen-an depot had established 68 cooperatives.

were the uniform cooperatives. Every month they turned out 9,000 uniforms, of the "chungshan type", 4,500 cotton-padded uniforms, and 1,580 military hats. There was a chemical goods cooperative with a monthly production of 4,000 bars of soap, 3,000 packages of tooth powder, 50,000 sticks of chalk, 800 bottles of ink, and varying quantities of sundries including medicines, alcohol, and soda,

"Monthly production in September in other cooperatives was: pottery, 5,000 bowls, bottles, basins, and jars; stockings, 100 dozens; metal ware, 150 oil lamps, 2,400 pairs of cloth, and padded cloth, shoes; hemp paper, 600 reams; gauze, 480 pounds; spinning and weaving, 14,740 yards of woven cotton cloth, 66 pounds of yarn, and 20 yards of knitted cloth; tailoring, 30 fur overcoats and 604 pairs of leggings.

"Foreign industrialists are invariably astounded to discover the extraordinary ratio of production to capital in China. In Shanghai, for example, even now, an annual production-to-capital ratio of 10/1 is quite common. Industrial cooperatives, for reasons to be sought both in the character of the organization and the conditions of the market, achieve a much higher production rate.

"In Yen-an the ratio is even higher. According to the *Monthly Production Report*⁶ merchandise valued at N.C.\$117,625 was made by Indusco units there which, as we have seen, were capitalized at only \$55,000. If those C.I.C. figures are accepted as correct, monthly production value appears to be more than 2 times greater than capital investment. Figured annually, the value of production would be over 25 times the size of the capital. This is astonishing, in miscellaneous industry, and there must be explanations for it.

"Several factors operate in Yen-an which probably have few parallels elsewhere. For one thing, these guerrilla industries represent a very small investment in capital-goods—machinery and plant. Land and property have either been given to them or leased at a nominal rental by the Border Government. The few simple machines and tools needed have been made by the workers, or cheaply purchased locally. Overhead is unbelievably low. Depreciation is small. There is no tie-up of capital in unsold stocks. Marketing is almost immediately consummated on the spot, or through consumers cooperatives, or Government or Army distributing organs. Management and technical supervision cost virtually nothing.

"About \$400,000 of C.I.C.'s funds invested elsewhere were

⁶Compiled by the Yen-an Office of C.I.C., September, 1939.

spent in establishing and maintaining administrative, training, and technical staffs and their quarters, a modest amount in relation to total capital and work achieved. In the case of Yen-an, however, this item was extremely negligible, because of the close cooperation extended by the Border Government to all productive enterprises in its areas.

"Shortly after the war began, there was established at Yen-an an Academy for Natural Sciences, which roughly corresponds to the National Resources Commission of the Central Government. The Academy is headed by Dr. Chen Kang-pai, who received his technical training in Germany, and was formerly a research expert with the China Foundation. Under Dr. Chen there are some 80 technicians, 20 of whom are engaged in survey and research work. Others are attached to schools, industries, cooperatives, and various industrial or semi-scientific organizations in the Border regions—some at the front in Shansi and Hopei. Chao Yi-feng, formerly with the National Economic Council, and an industrial research worker, was assigned by the Academy as Technical Director of the Yen-an Indusco. He is assisted by two other technicians, and a chemical engineer. The Yen-an Indusco staff, which included 16 men and women, thus had a certain amount of trained leadership from the beginning.

"C.I.C. personnel in Yen-an voluntarily agreed to accept the same living scale as prevails in other institutions under the Border Government. So staff members, regardless of their training, receive a maximum wage of \$5.00 monthly—considerably less than many skilled workers in the co-op industries themselves. Practice in this respect derives from the tradition established in days of the Soviets, when all administrative "functionaries" lived on the same economic level as the people. Border Government organizations are led by responsible Communists who, as social revolutionaries, willingly accept this absurd wage as part of the rigid economy self-imposed by their "equalitarian" regime during the "national emergency". In the case of C.I.C., this means that Yen-an's industrial cooperatives paid a maximum of only \$80 a month for the services of their entire staff of organizers, accountants, technicians and marketing agents. The large economy thus effected in salaries of personnel—from 70% to 80% as compared to this item in other C.I.C. depots—represents an important addition to actual working capital.

"It must be remembered also that outpayments for labor are very low indeed. Although profit-sharing bonuses in the form of ownership shares are distributed, which make the real wages higher than in privately-owned industry, the shares are not liquidated by

members but remain as part of the paid-up capital in the cooperative constantly in use, and increasing. Figures available on the Yen-an co-ops suggest that between 75% and 80% of the total capital is available for purchase of raw materials. Thus it would appear that about all that is necessary to launch any cooperative industry in this area is a modest purchasing credit plus responsibly organized labor.

"Another reason for the large production on a slender capital basis evidently lies in the special credit facilities arranged for Indusco by the Border Bank and the Border Region Producers and Consumers Cooperative Association.

"The high appreciation of cooperative principles practised as well as preached under the Yen-an regime may surprise most people. The fact is, however, that cooperative management is at present the most feasible form of industry for their regions as well as other parts of China. Under the terms of their present program for democratic development in China, the Chinese Communists consider cooperatives a sound and progressive method of industrialization. All they ask is that part of the benefits of a nation-wide movement come to them as well as to other regions in order to assist their fight against the Japanese as part of a United Front. The value of Government "cooperation" in industrializing their region should be apparent to anyone. Nothing is more important in preventing future civil war and political splits."

Cooperatives have always played an important role in the economic structure which the Chinese Communists have tried to build up during past years. Most of these were consumers, credit, marketing and farmers' producers' societies, but an attempt was also made to organize industry along cooperative lines as well as having "state factories." It is reported that in September, 1933, the Soviets had 4,423 "production and distribution" cooperatives in Kiangsi. Unlike the rural cooperatives under the Central Government, these were highly successful and did not become corrupted by absorption into the feudal agrarian framework of China. They seem to have followed cooperative principles zealously.

When the war started with Japan, the Communists gave up their original idea of Soviets and seem to have fallen back on cooperatives as the basic economic method. Producers' and consumers' societies were stressed and each was authorized to negotiate loans with banks and to conduct any kind of cooperative business—production, retail and wholesale marketing and purchasing, credit etc.⁷ This Border region, however, has almost a total scar-

⁷ Explained in the booklet, *Administrative Principles of Cooperative Enterprise in the Shen-Kan-Ning Border District*, Yen-an, 1938.

city of capital so development has not been able to proceed rapidly, particularly in any work requiring large financing.

In 1939 there were reported to be 104 consumers' cooperatives in the Border Region,⁸ with 73,693 members and a paid-up share-capital aggregating only \$92,550! Producers' societies numbered 137 with 28,326 members and a capital of only \$30,288. At this rate, each member of the latter paid an average of only \$1.06 per share. Many of these producers' societies (with an average of only \$220 capital per average unit of 206 members) represent the surplus labor power of one or more entire villages mobilized for cooperative farm production.

Of these 137 producers' societies, 114 were engaged in cotton spinning, nine in oil-pressing, three in salt-producing, six in weaving and one each in transport, flour-milling, charcoal-burning, bean-curd making, and porcelain and pottery work. Many villages possessed but one or two spinning wheels, sharing them cooperatively from house to house.

In December of 1939, an All-Union Cooperative Conference in Yen-an voted to reorganize the 137 existing producers' societies and incorporate them under the national Chinese Industrial Cooperatives Headquarters. They now use the same constitution and textbooks as Chungking.

The Border Region is rich in resources such as anthracite and coking coal, salt, iron, sulphur and limestone. A survey by local engineers reported that oil deposits existed in over 40 places, of the same geological era as the rich Baku fields.

The C.I.C. Depot in G-1 submitted a budget in 1939 for \$500,000, though the Government has only given the original \$20,000 so far. This included the following:

Caustic soda factory	..	..	..	..	..	..	\$100,000
Oil wells	..	..	..	..	..	..	100,000
Salt works	..	..	..	..	..	..	50,000
Power plant	..	..	..	..	..	..	50,000
Coal mining	..	..	..	..	..	..	50,000
Lime and cement works	..	..	..	..	..	..	10,000
Iron working	..	..	..	..	..	..	50,000
Sulphuric Acid industry	..	..	..	..	..	..	20,000
Testing laboratory	..	..	..	..	..	..	20,000
Canning factory (for meat)	..	..	..	..	..	..	20,000
Woollen industry	..	..	..	..	..	..	20,000
Match factory	..	..	..	..	..	..	10,000
							\$500,000

⁸ *Development of Cooperatives in the Border Region*, published in Yen-an, 1939.

They also requested an additional \$50,000 in loans for co-operatives for transport, soap manufacture, carpentry, shoe-making, clothing, oil-lamp making, medical supplies, leather work, paper, etc.

On the 8th Route administration in occupied areas falls the entire burden of defeating Japanese plans for economic enslavement of the north. So far they have done amazingly well in this endeavor with practically no help from anywhere except their monthly military subsidy from the Government of less than \$1,000,000. They cling tenaciously to the idea of a United Front with the middle class, though this has failed in other countries.

The most successful Indusco work in Japanese-occupied areas is Depot G-4 started in 1940 on the Shansi-Hopei border in the Taihangshan region, with funds from Java and the Philippines. A report from Meng Yuen-cheng dated April 8, 1940, tells an interesting story, some of the machinery having been taken specially during raids on Japanese positions. G-4 serves the local people and guerrillas and also the 8th Route Army, as well as other troops in the vicinity. This report describes the following:

1. *Spinning*. One unit is in operation and three others planned. Each factory is to have 40 spinning machines (with 48 to 32 spindles to a machine), power to be provided by water, charcoal engines and man-power. Each unit will employ about 200 young workers, and the one now operating is serving as a kind of training school for the three new factories to be started. Cotton is being brought from Hopei. The capital required for each factory unit is Ch. \$110,000. Cost of raw materials is high due to difficulties in transportation. There is much trouble bringing machinery in, and the Central armies at Loyang have detained 110 cases of iron machine parts for spinning and carding machines.

2. *Weaving*. Three weaving factories are functioning, each with from 30 to 40 looms, and each employing from 200 to 300 women and juvenile workers. The workers are all inexperienced and have to be trained. The entire cloth output goes for military uniforms. Towels are also produced.

3. *Blankets*. This is still in the experimental stage, but it is planned to open a factory with 20 looms and 200 workers in the autumn of 1940, looms to be made by local carpenters.

4. *Stockings and Socks*. Four factories are now in process of being established, each with 30 to 40 knitting machines.

5. *Coal*. Each Brigade has at least one coal mine under co-operative management. In the northern section is a big mine with

300 workers, using a steam winch captured expressly for this purpose from Anyang. It is planned to increase the number of workers to 2,000, which will supply enough coal for the whole district.

6. *Leather.* One cooperative in the northern section uses partly modern machine methods, having captured the machinery in a raid, and puts out 50 cowskins and 100 sheepskins daily. Another, using entirely native methods, puts out 20 cowskins daily. Altogether there are 200 workers, and it is planned to amalgamate the two. \$150,000 is required annually for raw materials alone. Another plant for the central region is planned, to be similar to the one using modern methods.

7. *Paper.* Six units are already working in five *hsiens*. The North China Edition of the Hsin Hwa Jih Pao (8th Route Army newspaper) is entirely supplied by the Indusco paper factories, which are under the direction of an expert, a returned student from the United States. This newspaper has a daily circulation of 20,000 to 30,000, which could be greatly expanded if more paper were available. At present each village has to be strictly rationed due to scarcity. Paper is made from elder tree bark, *ko p'i* bark, cloth, wood and old sandals.

8. *Printing.* The Hsin Hwa Jih Pao press has 600 workers in two units, but only three half-sheet presses and no dies, yet it can print 30,000 copies per day. The printers have no moulds and the type has had to be carved by hand. During the Japanese offensive in the spring of 1940, the entire plant was moved through two Japanese lines by the workers themselves. Under these maneuvering conditions the daily output of 20,000 to 30,000 papers was miraculously maintained. The machinery was moved at night and in the daytime the workers stopped in some secret place, set up their presses, and put out their newspaper as per schedule. Each regiment has a lithograph outfit.

9. *Soap.* Two factories each with 50 workers are making soap entirely for the troops. One is in the Wutaishan region.

10. *Drugs.* One drug factory is operating, under the direction of an overseas Chinese expert supplied by Hu Wen-hu for the purpose. This is doing excellent work, even better than the one in Yen-an.

11. *Toothbrushes.* One factory is making these from local pig bristles. A process has recently been discovered for turning the black bristles white.

12. *Flour milling.* One flour mill is operating, using a motor engine, with a daily production of 20 *tan*. It is planned to set up one in each district garrisoned by one brigade. The present mill uses a truck engine converted to charcoal and operates three stones continuously.

On August 20, 1940, a list of funds urgently needed for C.I.C. work in guerrilla war areas was drawn up, totalling about Ch. \$600,000, as follows:

G—1 (Northern Shensi)					
Research Laboratory	..	..	..	..	NC\$ 30,000
Coal Co-op	..	..	..	..	NC\$ 30,000
Iron Foundry Co-op	..	..	..	..	NC\$ 30,000
A New Printing Co-op	..	..	..	..	NC\$ 12,000
Art and Educational Equipment Co-op	..	..	..	..	NC\$ 15,000
Two Transport Corps	..	..	..	..	NC\$ 20,000
Twenty Wool Weaving and Spinning Co-ops	..	..	..	..	NC\$ 100,000
G—2 (Southern Chahar, Northern Shansi, and Northern Hopci)					
Twenty small co-ops and their administration	..	..	..	..	NC\$ 85,000
Two transport co-ops	..	..	..	..	NC\$ 20,000
G—3 (Southwestern Shansi) for the time being the conditions there do not allow further work for the C.I.C. and there are still funds unused.					
G—4 (Southeastern Shansi)					
Tanning Co-ops	..	..	..	..	NC\$ 20,000
Paper Co-op	..	..	..	..	NC\$ 15,000
Printing Co-op	..	..	..	..	NC\$ 20,000
Transport Co-op	..	..	..	..	NC\$ 20,000
G—5 (Northwestern Shansi)					
To start fifteen Co-ops	..	..	..	..	NC\$ 65,000
Transport Co-op	..	..	..	..	NC\$ 10,000
G—6 (Southern Anhui)					
Transport Co-op	..	..	..	..	NC\$ 15,000
Crippled Soldiers Co-op	..	..	..	..	NC\$ 15,000
Fund for Training	..	..	..	..	NC\$ 10,000
Administration Fund	..	..	..	..	NC\$ 15,000
G—7 (Northern Anhui)					
To start small co-ops	..	..	..	..	NC\$ 55,000

From the above it will be seen that about N.C.\$600,000 is immediately needed for developing the C.I.C. work in the various guerrilla war areas. At least \$2,000,000 is urgently required for

front-line industry during 1940, to make it effective, and it was decided in the Philippines to start a campaign for this amount, other countries being requested to join the campaign. The Philippines have already contributed over Ch. \$250,000 during 1940 toward the sum required.

VI. WINNING THE WAR

1. HELPING THE SOLDIER AT THE FRONT

One of the criticisms made of the Industrial Cooperative movement is that it is engaged mostly in commercial production in the rear, and has not done enough to provide war supplies and to help the soldier at the front. The contrary criticism is also vehemently made that it is putting too much of its energies into making blankets, surgical cotton and gauze and other army needs. Such a critic once estimated that 50% of the cooperatives in the Northwest Headquarters were engaged in war production, this being the blanket center.

The movement is confronted with a knotty problem. If it gives too much of its energies to the manufacture of war supplies, it will have no balanced economic base for permanent development when this demand ceases. It will likewise not have a sufficiently broad inter-provincial mass production and distribution system prepared to meet the threat of cheap Japanese goods, which will flood the country when peace comes, whoever wins the war. Of course, if sufficient capital and technical leadership were available it could meet both emergencies and not strain its slender capacities in strictly wartime work. There is much argument over this question, largely unnecessary. War orders work both ways. No doubt they represent a patriotic sacrifice on the part of Indusco, and have caused it more trouble and worry than any other phase of its work. Yet it seems petty and academic to question this work when soldiers are freezing to death, refugees dying of hunger, and foreign exchange being depleted to import supplies at many times the cost of local manufacture, while cotton and wool are being sold to Japan. Even if all the apparatus built up on the basis of war orders had to be abandoned later, it would have served its purpose in the meantime, if only by educating the army and the disbanded workers in the meaning of cooperatives. Any expansion of cooperative industry is a gain, whether permanent or temporary, and war orders provide a good opportunity for such expansion and training. Extra funds for this work come from the Ministry of War and mean so much extra production. Support of the army also means new

protection and support and assistance in getting facilities for raw material supply and transportation. As a matter of plain fact, it is wishful pacifist thinking to imagine that army orders will not continue. China has always had a standing army of two million troops, and there is no reason to believe demobilization is possible on any large scale.

Indusco has already had a considerable influence on civilian morale. It tends to keep commodity prices down and to break profiteering, while keeping agriculture going by purchasing farm products. It tends to relieve the necessity of buying from and selling to the Japanese. It revives the market and stabilizes the economy of the country. The mere record of the movement is an encouragement to all patriotic elements, giving them new hope in their own people and their powers of resistance.

If a real war industry were created, Indusco would have an extremely important influence upon army morale, especially if frontline production were developed on a scale large enough to make itself seen and felt by the troops. Every soldier who has been blessed with an Indusco woollen blanket must regard the little triangle on it as a talisman of good luck. It is only due to stupidity really that patriotic army generals have not long since seen the potentialities of Indusco war industry and insisted upon its rapid development.

The most important contribution Indusco has made to the fighting forces is the manufacture of army blankets. Four hundred thousand are now in possession of grateful soldiers, and an order for 1,500,000 more is being filled.¹ This is an interesting story.

It was Alley's idea—one of his numerous contributions. In the World War he learned to sympathize with the hard lot of the soldier, and, during his inspection tours for Indusco, was appalled to see hundreds of lightly wounded soldiers frozen to death at the side of the roads. Others were dying of malaria, dysentery and pneumonia—wrapped only in thin blankets of cotton shoddy imported from India. It has often been said that more of China's wounded die from lack of ordinary care than of their wounds. And while China's gallant young men were facing the bitter winter in cotton uniforms and sandals, Japanese troops were cozy in woollen overcoats and blankets made of *Chinese* wool, not to speak of fleecelined caps and leather shoes, also from the backs of Chinese sheep.

¹ The value of army blanket orders filled in 1939 was Ch. \$6,000,000, and new orders for 1940 are estimated at Ch. \$15,000,000.

Alley proposed to make a million woollen army blankets, which would at the same time take care of the wool crop in the Northwest and save the trouble of transporting it all the way to Japanese factories. That was in February, 1939. Month after month passed and still the Ministry of War took no action. They went on purchasing cotton blankets abroad, while their own cotton farmers faced ruin, or sold to the enemy, and refugees starved for lack of work. It was not until August that the order was finally placed, and even then money advances were slow in coming, causing further delay. The Army had promised an advance of \$3,000,000. C.I.C. could guarantee only 400,000 by the late winter months and Frank Lem was put in charge of the project. Few thought it could be done. But Indusco was out to prove itself. Equipment had to be made in Indusco machine-shops and installed. Spinners and weavers who had never before handled wool had to be trained. Peasant women had to be mobilized in their own homes and emergency piece work instituted, as no extra capital was available to set workers up in permanent cooperatives. Nevertheless, Indusco handed over the 400,000 blankets only a few weeks behind schedule—at a cost which averaged about \$10 (less than U.S. \$1), including machinery equipment. This is a phenomenal achievement in China, considering all the difficulties. Nearly all the wool yarn had to be handspun, for one thing.

Wool-buying was under a form of monopoly at that time and the organization that had promised to provide the raw material suddenly stopped the supply in October. Indusco looms were therefore idle in Szechuan for fifty days, while the Headquarters sent their own men out to buy in the field—incidentally making many new contacts among Tibetans and Mohammedans and others in the far west. The market was rising rapidly due to speculators (and mayhap also to the proposed blanket order). At the same time the opposition to Indusco in certain reactionary circles were utilizing their usual dog-in-the-manger tactics to prevent the movement from gaining strength or making any contact with the army. They are very much afraid of the little Indusco triangle for some reason. Perhaps they thought 400,000 freezing soldiers would lose their hearts to it.

When the time came for the new 1,500,000 order there was a tremendous amount of hesitation and argument for several months, and the order was very nearly sent abroad, in spite of gold exchange being over twenty to one.

Much of the credit for the efficiency in handling this project goes to Dr. Lewis C. S. Smythe and his associate in Chengtu, Charles

H. Riggs, as well as to J. B. Tayler in Lanchow. As informal Technical Advisors for Indusco, they saved the day. Dr. Smythe sent to Shanghai for a model foot-treadle spinning wheel, an exact copy of the old American wheel, and adapted it to the work. An Indusco machine-shop was set up in Chengtu, which streamlined the improved model and started mass production of 50 to 100 machines daily, at a cost of \$6.00 apiece (later reduced to \$5.65). The cost elsewhere was \$10. Two models were sent to the Northwest to be copied in their machine works, and fifty were sent to an outlying Szechuan depot. On his journey to the Sungpan to arrange for the wool supply, Alley took one of the wheels and an orphan trained in its use to the Sungpan, to start Tibetan tribesmen in spinning.

Dr. Smythe took charge of the west Szechuan work, and was given responsibility for producing 150,000 of the order of 400,000. For this 7,500 wheels and 750 jerk-cord hand looms had to be produced. Aluminium for the flyers on the wheels came from Japanese wrecked bombers. Peasant women were given training in the use of the wheel, on condition that each one teach ten others.

Later on arrangements were made to secure models of the best small-scale carding and spinning equipment made in England, in order to bring Indusco work up to maximum efficiency to meet future competition.

This "blanket" order, in both senses of the term, has somewhat disrupted the ordinary process of cooperative growth. It has made necessary the emergency employment and training of thousands of spinners and weavers on a piece-goods basis, including home workers, many of whom may never be absorbed into the cooperative framework. This is a great gain for Chinese industry and production, though rather gratuitous on the part of Indusco itself. If the movement receives enough capital, however, it can organize all these temporary workers and many times more, and the machines will be available for rug-making or other forms of wool weaving.

Aside from medical and hospital supplies and blankets, Indusco has also gone into the uniform-making business with a will.² One of the first outside orders received in the Northwest at the end of 1938 was for 5,000 padded army overcoats and \$500,000 worth of soldiers' clothing, both orders being filled within six weeks, as well as one for 100,000 hemp sandbags.

² By June, 1940, C.I.C. had supplied Ch.\$3,000,000 worth of uniforms, and other army orders for leather goods, medical supplies, canvas, etc., totalled \$3,000,000. The headquarters town in the Northwest alone is producing 1,600 yards of cloth daily for the Army.

Early in 1939, the C.I.C. offered to mobilize 300,000 spinners and weavers to make several million soldiers' uniforms, but orders came in only sporadically, so large-scale manufacture could not be organized as in the case of the blankets. At that time there was a shortage of over two million bolts of cotton cloth for uniforms and no other organization was prepared to supply this while import meant a further immense drain on foreign exchange.

In the winter of 1939, C.I.C. received an order for 120,000 padded overcoats totalling \$1,200,000. Of these 40,000 were made in the Northwest, 50,000 in the Southwest, 20,000 in Szechuan-Sikong and 10,000 in the Southeast.

A letter from Karl C. Lee, head of the Szechuan-Sikong office, in November stated: "Right now we are busy making cloth for clothing purposes. Six thousand bolts, each 110 Chinese feet long, have been delivered, and a new contract has just been signed whereby we have agreed to deliver from two to ten thousand bolts per month over an indefinite period. Six thousand bolts of bandage cloth are now under way, and we are also busy making our share of C.I.C. blankets."

Sian is the Northwest center for army supplies. In January, 1940, Sian cooperatives delivered 35,000 padded overcoats, and in April 60,000 of an order for 300,000 summer uniforms—caps, puttees and three-piece suits. In March the *Northwest Indusco News* reported:

"Living on the premises of one of Sian's hundreds of ancient temples, is a woman's coop that turns out 200 uniforms daily. The women are all refugees, largely from Manchuria. Their husbands are either at the front or have been killed in action, and they are cooperating for productive work that will keep their minds from worrying and their children from starving. Loan \$3,000, of which so far (since beginning work in April 1939) \$300 has been repaid. The coop doesn't make much but doesn't lose; the women themselves live on the poorest possible diet, costing less than nine dollars a month, so as to be able to support their families . . ."

" . . . Sian has all but completed her 18,000 army blankets.

"Seventeen cooperatives in Paoki with five to six hundred workers are at present engaged in weaving army cloth to be made up into uniforms, at the rate of 1,600 yards of cloth daily. Reason for this concentration of the weaving co-ops on cloth for the Army is that the machine thread necessary for the warp of the cloth is unobtainable by ordinary commercial means. Remaining stocks of machine thread are kept solely for Army use, and given out to the co-ops by the Army, with an additional allowance for buying

the weft thread and for workmanship.

"So far the Army has agreed to deal with the co-ops in this manner for six months, during which period 288,000 yards of cloth should have been produced and delivered. At the end of the six months, there will be fresh negotiations for renewing the contract. Meanwhile some of the cloth will be passed on by the Army to different co-ops to be made up into uniforms and other articles. (A women's co-op in Paoki has recently received an order to make 100,000 duffle bags at \$0.033 per bag for work).

"Paoki's three C.I.C. Army blanket producing units have just completed their quota of 40,000 blankets. 376 men and fifty looms have been engaged in this work, putting out a maximum of 1,000 blankets daily. For these blankets the Army makes an allowance of 10 to 11 dollars per blanket, besides paying some of the costs of factory instalments."

In February, two towns near Sian were putting out 2,600 army blankets a day, while Lanchow was making 1,200 daily. (The Northwest also made 250,000 of the original order for 400,000.)

Other army supplies are made in all regions from hemp with tung oil water-proofing: tarpaulins for trains and trucks, knapsacks, machine-gun covers, leggings, camp beds, mail bags, rain coats. Of course ordinary daily items are also provided for the army as ordered, such as shoes, stockings, sandals, umbrellas, flashlights, belts, bandoliers, pistol holsters, soap, towels, biscuits, tinned goods and cigarettes. Many disabled soldiers are engaged in making cigarettes for the army. Boats, carts and pontoons for army transport are also part of Indusco's production. The Southeast has two factories making army helmets, and turns out thousands of leather army belts.

No complete statistics on army supplies are available. The writer asked the Northwest Headquarters for a report and received a statement on supplies ordered by the Army from the Paochi District Union Supply and Marketing Department during the year 1939:

<i>Article</i>	<i>Number and Unit</i>	<i>NC \$ per Unit</i>
Woollen blankets	50,000 pieces	8.00
Padded overcoats	36,000 "	14.00
Jackets	5,000 "	2.10
Uniforms	2,500 suits	10.00
Cloth shoes	10,000 pairs	1.70
Socks and stockings	5,000 dozen pairs	6.00
Towels	4,800 dozens	6.00

<i>Article</i>	<i>Number & Unit</i>	<i>NC \$ per Unit</i>
Bandages	7,000 lbs.	5.00
Medicated cotton	35,000 lbs.	1.20
Plain cloth	5,000 <i>p'i</i> of 40 yds. \times 34 ins.	55.00
Canvas	30,000 yards, 2 ft. 7 ins. wide	2.00
Canvas articles	2,500 pieces	1.50
Puffed rice	6,400 bags about 5 oz. each	0.30
Biscuits (<i>Gan bing</i>)	6,000 catties	0.70
Soap	5,000 boxes	26.00
Paper	1,500 packs of 100 sheets 21" \times 32"	10.00
Ink	1,000 bottles	0.40

Indusco has not entered the munitions field as yet. The machine shops and chemical plants are being created, however, which could be utilized for this branch of production if the Government wishes to do so. There are already many skilled arsenal workers in Indusco plants. To demonstrate its competence in this field, the Cooperative Machine-shop in the Northwest has produced a submachine-gun, a Mauser pistol, an automatic rifle and an ordinary rifle. The only order received by Indusco for munitions up to the end of 1939 came from a local division of the Central Army in the Northwest. This order for 70,000 hand grenades was easily filled in a month.⁸

Much of China's money for arms has been spent in imports, a tremendous waste in view of exchange ranging from ten to 24 to one and high costs of transportation. China can make all her necessary ammunition except shells, and there is not much hope of an artillery offensive anyway. Government arsenals are now obliged to produce most of her ammunition and small arms, but not in sufficient quantities to supply all the fighting forces in the field. (No good steel is available for rifle barrels, but these are imported and the stocks made locally, or the barrels are taken from broken guns and reconditioned.) The Central Army gets first choice, of course, and the other armies and guerrilla units have the greatest difficulty in procuring any kind of arms or ammunition, yet they are in the most strategic position, close to Japanese troops, where small arms have the most effective use. In North China the guerrillas have never been supplied with high explosives for demolition work, which has immeasurably handicapped their special work of breaking enemy lines of transportation.

⁸ Cooperatives in guerrilla regions, however, are making hand grenades. In Anhui, it is reported, the C.I.C. is making the best type of pineapple hand grenade for Ch.\$4.00, said to be as good as imported ones costing several times as much.

Even to supply the troops with daily necessities, aside from munitions, would require a huge industry, though the saving to the Government by purchasing from the cooperatives would be very great if only in the elimination of private war-profiteering. For example, according to E. R. Lapwood, "the C.I.C. could supply, wearing apparel, leather goods, blankets, canvas equipment, concentrated rations. Each soldier would possibly need \$300.00 worth per year." There are variously said to be from two to five million soldiers in China. At the above rate, such war orders would be about \$600,000,000 annually for each two million troops. The C.I.C. would require about \$60,000,000 in capital to be able to produce the required orders, as its monthly production is usually equivalent to the total capital invested.

2. DISABLED SOLDIERS HELP THEMSELVES

The possibility of putting future demobilized soldiers into Indusco for work and thereby to save the country from the customary banditry, civil war and intensification of the struggle for existence is an interesting but fruitless speculation. In the meantime, Indusco is actually beginning to provide a solution for the disabled soldier problem, and some of its most ardent partisans are several hundred ten-year veterans of civil and national wars. Over 2,000 crippled soldiers are now Indusco members.

This work began in Kiangsi, when Alley stumbled accidentally on some of his proteges from the Shanghai Disabled Soldiers' Hospital in November of 1938. By the time Lowry Sinclair made his trip to the Southeast Headquarters in August, 1939, Indusco had 47 "crippled soldier" cooperatives with 828 members, part soldiers and part civilians. They constituted about one-third of the total 132 units in operation and had a capital of \$46,840. Sinclair was much excited and enthusiastic about this experiment. The most amazing fact was that these disabled cooperators were considered quite the match by local country belles and at the beginning of the summer two hundred marriages had been performed at \$2 a couple. This was such a success that two hundred more were ready to take the fatal step. This is absolute proof of the success of the work, for Chinese girls (and their family match-makers) are a canny lot and always try to marry the best man in the vicinity from a business point of view. Contrast this prosperity and civic dignity with the usual lot of the disabled soldier, who wanders in the villages, a beggar and an outcast. So disgraced and unfortunate is he, that he usually refuses to return to his home, preferring to be a reviled beggar among strangers until disease and death claim him, as is

the fate of all who have no means of livelihood in China. There is some Confucian superstition making disabled soldiers perish in the family and neighborhood. It derives from the idea of filial piety that the body belongs to one's ancestors and must be returned to the grave in whole condition—probably originally a bright method of avoiding the care of helpless relatives.

Vocational training for the wounded was a favorite notion of J. J. Poan, an English-educated Quaker who originally tried to start this at the Disabled Soldiers' Hospital in Shanghai. These soldiers, mostly blind or legless and armless, were transferred to Kiangsi and when Alley came upon them they were in a desperate frame of mind, having resolved on a virtual suicide pact. They said they would not retreat another inch and would wait until the Japanese put an end to their misery. The Indusco idea won fervent hearts and the soldiers could hardly wait to begin work. J. J. Poan, in spite of his advanced age, has come to the interior and is now actively supervising these cooperatives and another center in Fukien, F-3, where five of his Shanghai staff have come to help.

The writer went through the Shanghai hospital with Alley while the soldiers were still convalescent. It was a pitiful sight and no one would then have imagined they would one day be creating industry on their own. Alley made a survey of the men which revealed that most of them were from the famous 87th and 88th Divisions, and had fought in the civil war in Kiangsi for many years previous to their Shanghai experience. They came from many provinces. Such old veterans are usually considered particularly "bad nails" in China, and the fact that they have been so progressive in cooperative management is an important indication. It must have been a curious feeling for them to come back to Kiangsi, the scene of the war against the Reds, and marry the sisters of men whom they possibly had killed.

Kiangsi Depot No. 2, the disabled soldiers' center, is an interesting experiment in establishing cooperation between the veterans and the civil population, thus actually rehabilitating the former into civilian life. This was a totally new idea, and has proved successful. The 828 members of Depot 2 consist of 38% soldiers, 43% unemployed local workers, 16% of refugees and the remainder local women. The Depot is managed by Chao Tung-sheng, formerly with the International Famine Relief Commission in Hopei, and Colonel Chen Yu-kuang, who heads the Crippled Soldiers' Hospital in the region. They are assisted by the local *hsien* magistrate.

One of the most interesting of these cooperatives is a printing

plant, which turns out both color printing and stone lithographing. The big brass screw printing press was an inheritance from the Kiangsi Soviets. They had used it to print their bank notes and when the Long March began, had buried it. Some farmers dug it up, however, and sold it to the wounded soldiers for \$37. Posters from this plant are spread all over the province. One thing it advertises is the "Wounded Soldier" cigarette, made by the disabled. The package pictures a soldier on crutches.

Depot 2 is very proud of its spinning, weaving and tailoring units. In 20 hours they completed their first rush order for 2,000 sets of bedding for the Soldiers' Hospital and cooperative dormitories. This Depot is famous for its promotion work and every village in the district carries its posters. The standard notice says: "Come, workers who have been wandering in the war zones, unemployed workers and crippled soldiers! Come, you who have skill but none to employ you! Let us drag the wealth from our soil—its gold, its iron and its coal. Let us use it to win the war and to build a new life for ourselves."

Colonel Chen, who lost one arm in the civil war, is an energetic Cantonese and a graduate of Whampoa Academy. He greeted Lowry Sinclair with pleasure and told him several stories of the cooperatives. One of these concerned Hsu Chang-fah, head of the leather-tanning co-op, once a fierce Northern corporal "but his wholehearted interest in his cooperative had since persuaded him to treat his men kindly. This ox of a fellow had the round face of a child, through which a puzzled expression of intelligence struggled as he thought out the problems of his cooperative."

When Corporal Hsu wanted to start his tanning unit, it was found that hides could only be procured from a distant city, but he made the trip himself. Halfway back, he phoned the Colonel: "Colonel, please send some men to help me. These hides are so heavy on my pole that I haven't any skin left on my shoulders." The corporal was not used to such patriotic coolie work. This leather-work turned out very successfully and the writer has a first-rate black leather briefcase brought back by Lowry Sinclair from Hsu's wounded soldiers' workshop.

The good corporal had a brighter idea on another occasion. He was commissioned to make another trip to get supplies of beef and fat. How to get them back on the overcrowded public bus? Hsu pondered mightily, then late at night took his huge package to the bus and plunged it right in the middle. At dawn he hurried back to get his own seat and, encountering his own freight in the way, raised an indignant cry to the driver. The driver, thinking

some arrogant official responsible for the package, dared not remove it.

Hsu grumbled until reaching his destination when he shouldered the load with a grin and marched off.

The disciplined military routine for the soldiers starts with roll call at 5:30 followed by setting-up exercises. Work in the co-operatives is from 7:00 to 4:30, and in the evening there are compulsory classes in literacy, technical subjects, commerce, geography and current events. They eat only twice a day and lights are out at 9:30. The soldiers show immense delight in their classes. Most of them ran away to join the army because they were too poor either to go to school or to get enough food at home.

Though only some 300 of the 3,000 crippled soldiers in the vicinity of Depot 2 had been absorbed into the cooperatives, the depot planned to create at least 200 with an average capital of \$200 each. A total capital of \$400,000 was wanted for the region. Another soldiers' center exists in the southern Chekiang Depot.

If funds and technicians were available, much could be done along this line. Soldiers are said to be pathetically anxious to join the work. In the spring of 1939 the C.I.C. estimated that it had 1,000 disabled soldiers in contract work (making army blankets largely), but only 400 active cooperative members. In the spring of 1939 the Friends of the Wounded Soldiers⁴ campaign was launched in China, promoted by a C.I.C. man, and the cooperatives are backing the movement to the best of their ability. Indusco could supply these soldiers with clothing and food at cheap prices, as well as jobs. One cooperative makes good canned milk and beef, which it has offered to sell to the wounded at \$2. Other China-canned milk costs \$3.60 in this locality, while imported brands sell for \$6 a tin.

The Southwest Headquarters is starting soldiers cooperatives in Kweiyang, in collaboration with Dr. Robert Lim, and Miss Jen Chu-min sent the writer a letter saying: "Did you know that there were 35,000 disabled soldiers, blind and crippled, in X, and that *half of them have no winter uniforms, overcoats or even padded quilts?* You can sometimes see them out on the streets, with bits of old torn uniform or sacking tied round their bare parts to keep them warm. The authorities can only afford to make an allowance of N.C.\$12 per man for winter clothes; but prices have risen terribly here, and it costs at least \$25 to make a padded overcoat and even more for a padded uniform."

⁴ See note on p. 9

The Northwest Headquarters started its disabled soldiers' work in November, 1939:

"In an old temple half way up one of the loess hillsides with which X is surrounded, three hundred soldiers were living, with little to occupy their minds and nothing to occupy their hands. C.I.C. gave them a hundred and fifty spinning wheels and sent along someone to show them how to work. Every *pan* of sixteen men had seven spinning wheels and others could also help preparing the wool, arranging the finished yarn, looking after storage, transportation and accounts. C.I.C. paid 30 cents per catty of wool spun. The workers received 21 cents of this, the management and accountants 5 cents, and 6 cents was put into the common fund to buy things for the soldiers still fighting up at the front. Altogether, from the middle of November to the end of March, this group of workers has spun over 16,000 catties of wool for the C.I.C. and for their fellow soldiers who will receive the blankets. They have earned \$4,800, of which \$760 has been contributed to their fellow soldiers at the front. Now, in the interim between making last winter's blankets and making next, they are turning their hands to other things such as crochet work baskets and other useful oddments. One man teaches another; all are anxious to learn and become producers.

"Nowadays as they work, the sound of children playing and singing come up to them from an Indusco Primary School below. And further down the hill are two disabled soldiers' cooperatives.

"These groups, with refugee spinners and members of a women's sewing cooperative on the school premises, and a group of refugee girls attending a technical training school, are getting together to make their corner of the world as beautiful as they can. Natural surroundings help them. The historic Wei River gleams in a broad sandy valley below, while across it rise the jagged peaks of the Tsing Ling mountains. The pine trees round the temple up on the hill make it cool and green. The soldiers in the co-op community below have dug their own caves out from either side of a cool ravine, and planted a little garden with cliff decorations tricked out in white pebbles at the end of their compound . . .

"The children in the school are the delighted possessors of new treelings, which they have dug into the ground over the school premises. Peasants, refugees, wounded soldiers and women's C.I.C. staff have joined in the work of building a new road from which to approach the new "Garden City", as they wishfully call it.

"The two disabled soldier co-ops at the bottom of the hill are for leather tanning and shoe making respectively. Each has a

capital of \$3,000. The tannery has twenty members and the shoe co-op has forty. All have paid up \$3.70 in shares, and subscribed to \$10. The leather tannery began work on March 23rd, and can now (early April) turn out eight skins a day, most of which are used as raw material by the shoe co-op. Two refugees have been brought in to train the soldiers for the more skilled part of the tanning process. Several of the shoe-makers had already been engaged in this work when the war called them.

"A little distance from the old cock-fighting arena, is the latest addition to C.I.C.'s disabled soldier cooperatives in the Northwest. It has fifteen members, four of whom were officers and eleven ordinary soldiers. Shares paid up amount to \$100, loan capital from C.I.C. \$5,000. Work began in co-op, Chinese note-paper, copper wash-basins and stamps or seals, on February 1st, this year. Maximum daily output is 6 boxes of soap (each 100 pieces) worth \$36.00 each, one dozen copper wash basins engraved with the C.I.C. emblem and "Victory Co-op Product", each worth \$2.90, about 20 seals worth \$1.00 each, and a small amount of note paper. The Supply and Marketing Department of the Co-op Union in Paoki gives them 60% of the price on as much of these products as the "Victory Co-op" can turn in, and hands over the other 40% after sale. So far output has been a good deal below maximum owing to an uneven supply of raw materials. In all about \$3,000 worth of goods have been sold in the first two months of work.

"One of these men was wounded on the 8th of July, 1937! He was a squad leader in the famous 37th Division of Chi Hsing-wen, which was defending Lukouchiao Bridge at the outbreak of the war. He himself was wounded in seven different places by rifle fire before he gave up his post, and he says that Chi Hsing-wen, his Divisional Commander, was wounded even more severely. He made his way slowly along the Pinghan Railway and the Lunghai, stopping off to rest at various hospitals along the way, until arriving in Paoki at the end of the railway.

"Member with the best claim to having originated this co-op is one An Ping-yang, a lower officer. An Ping-yang has an inventive turn of mind, which can be seen evidenced in the clever little devices among the co-op's simple equipment. Inactivity riled An, and he determined to work out some way of overcoming it. He managed to secure a book on soap-making and other simple industries. Local raw materials were not the same as those mentioned in the book, but An set to work with a combination of the principles in the book and of local native knowledge, to make the copper goods and the soap as they are made by the coop today.

He experimented for six months, paying his own expenses out of his pension, before he was satisfied. Then he got a small loan from a higher officer, gathered his friends about him, and set to work. Later on, when business began to expand and no more capital was forthcoming from the officer friend, he heard of the C.I.C., which took over his capital commitments and started him up on a bigger scale.

"Now they are cooperators. An organizer from the Paoki office is teaching them modern accounting methods, the Marketing and Supply Department of the Co-op Union does their buying and selling for them, and a technician has helped them to improve their product. At the end of a six months' period they will divide such of the profits as the C.I.C. constitution allows to the members, among themselves and the fund for helping soldiers at the front, equally.

"The blank, wet cakes of soap slide into the stamping machine (whose plates were cut from the brass by the co-op itself), and out come shapely sticks of "Victory Soap" with a neat co-op triangle stamped underneath the inscription. To the visitor it occurs that the victory in question is not only the victory of China over her invaders, but of a whole mind over a broken body, of human endeavor over inhuman destruction."

There is no doubt that one of the most vital factors in keeping up army *morale* would be providing jobs for the wounded. It is not so hard to fight bravely at the front if you know there is a future for you afterward. It is found that the disabled can be taught to do many kinds of industrial work from blacksmithing and printing, to making soap, shoes, paper, dyeing, lime-working, spinning, weaving, gold-washing, and all kinds of tobacco processing.

Another important contribution C.I.C. is making to army *morale* is in providing a livelihood for soldiers' wives and families. One such center in southeast Kiangsi has six cooperatives with 53 members, making sandals and clothing on a loan of \$920. Forty others were being organized into five additional units. Similar centers exist in other Headquarters.

Indusco women workers also joined in the nation-wide movement to write encouraging letters to the soldiers at the front.⁵ A typical letter from Ching Shih-hua of the Women's Training Class in the Southwest read:

⁵ The Friends of the Wounded Soldiers Movement was launched on February 19, 1943, with 100,000 from the New Life Movement. A membership of 100,000 was to be recruited, each to give from \$1 to \$100 a month. Another important organization is the

"Brave Fighters,

"During this hot weather you fight like tigers with the Japanese devils. You do not tire under their guns and airplanes through the day and night.

"You are so brave you make us all admire you. You have to endure so much suffering and dangers for the liberty of the nation.

"You are so enthusiastic, we should buy things and send them to the front to comfort you. But we are refugees and do not have money, so instead we write letters to comfort you. Wish you strength to fight."

National Christian Service Council for Wounded Soldiers in Transit founded in 1918, which mobilized 6,000 workers and expended \$359,595 in 1939. During 1939, it maintained 147 service stations, giving nearly 700,000 treatments.

VII. THE INDUSCO GOLD-RUSH AND OTHER MINING ACTIVITIES

China has a wealth of mineral resources which for various reasons have remained largely unexploited. This is one reason for Japan's anxiety to occupy certain areas. Just as European immigrants and American entrepreneurs once rushed to California and Alaska, so the west and north of this continent are beginning to draw thousands of poor Chinese refugees in search of gold and a livelihood. These sourdoughs, however, are working in cooperative groups, and need not carry pistols to fend off the rugged type of individual.

Indusco has started mining operations in four headquarters, extending from Szechuan and Kansu in the far west to the south-eastern provinces. Let us look first at the work in the Northwest:

The first coal-mining cooperative was started by a group of Manchurian refugees in Shensi in 1938. Soon the Lee Hwa Coal Mining Cooperative was putting out 20 tons of anthracite a day, while the Kansu-Shensi Coal Mining Cooperative produced 30 tons of bituminous. Output is limited to the requirements of the local cooperatives, but 100 tons daily could easily be mined on demand. It is estimated that the bituminous deposit could be mined at the rate of 200 tons daily for 15 years. Transportation costs to the nearest manufacturing center are several times greater than mining costs, however; so the market is limited until better facilities exist. Within a few months the Northwest Headquarters had 17 mining cooperatives, mostly in gold, iron, copper, and coal, with a membership of 420 refugees, and a share capital of \$1,926. Mining then employed the third largest number of workers, and it is in this work, requiring little capital, that most of the poorest refugees find their livelihood.

Gold-panning began in November, 1938, along the Han River in the southwest corner of Shensi. For years the native farmers had panned gold as a side line to add to their meagre farm earnings. They worked sporadically during the warm season, but left off in the winter. Never would they work more than half a day at a time, owing to a local superstition that if they appeared too greedy

for the precious metal, some gold would be attracted to the place and spirit it all away. (A note for the U.S. Treasury Department.)

By the end of August, 1939, 19 gold-washing societies with 380 members were producing about \$11,000 worth a month. When a non-interest bearing loan of \$100,000 arrived from Madame H. H. Kung, the work received great impetus. Indusco obtained legal mining rights from the Shansi Provincial Government, and by the middle of December, 1939, fifty units had been established using only \$20,000 of the loan. These societies average 25 members each, hence each individual is being put to work for about \$16. It is estimated that four times that number of dependents are being supported by the miners. In December output was 75 ounces a month, which sold then for Ch.\$360 an ounce. Forty to fifty new societies were ready to start work, and it was estimated in a C.I.C. report that during the spring of 1940, 250 cooperatives would be in operation along the Han River, using Madame Kung's \$100,000 loan as capital: "If the deposits remain as at present, and if the prevailing price continues, it is estimated that when the principal is returned, the 12,000 now-destitute workers will have produced more than Ch.\$2,000,000 worth of gold. In addition, between 45,000 and 50,000 people will have kept alive and been set up on a working foundation to better their own standard of living."

Gold-mining is also being carried on by the C.I.C. in Hunan and Kiangsi in the south and near Chengtu in the west. In Kiangsi many wounded soldiers are engaged in placer work. Alley also started some placer cooperatives in the Sungpan region (Szechuan) and reported at the end of 1939 that they were very profitable, cashing in at Ch.\$430 an ounce. He said that "the gold deposited in this section, if properly mined, would easily pay for the entire war." This region is the home of aborigine tribesmen ordinarily very unfriendly to the Chinese. A few years ago Kansu troops tried to get at the gold by force, but the tribesmen rained down boulders on them and drove them out with many deaths. They welcomed Alley, however, and the C.I.C. idea. The solution is, of course, to organize the tribesmen into their own mining cooperatives so they will benefit from the development. One small town had already drawn 10,000 miners, all working very wastefully. Alley said he thought its future might "surpass that of the typical gold rush towns of America and Africa in the nineteenth century." He has hopes of organizing the individual miners into cooperatives, so machinery can be purchased and scientific management introduced.

Kiangsi is one of the richest regions. "There are more natural resources in south Kiangsi than in any fair-sized European kingdom.

A wonderful base for prolonged resistance if we can get it started in production," Alley wrote. Indusco engineers found that coal was taken from the top strata only, and that none of the local minerals except iron were being used industrially. Rich deposits exist of wolfram, molybdenum, tin, bismuth, lead, manganese, zinc, copper, silver and gold, as well as iron and coal, kaolin for pottery, silica sand for glass and limestone (with coal nearby) for cement. Before the war south Kiangsi supplied one-third of the world's tungsten.

Under Edward Ho, a mining engineer, the C.I.C. made a survey of the province, and has already started operations in coal, lead, wolfram, iron, sulphur, limestone and gold, as well as materials for glass, cement and pottery. By July, 1939, the Southeast Headquarters had five mining societies with 98 members, and the number has since greatly increased.

Iron mining and smelting is the first essential for the C.I.C., as most machinery is made locally. Every headquarters is planning to develop its own local industry. Two of China's principal iron production regions—in Anhui and Hupeh—are now occupied by the Japanese, but the third, Southeast Shansi, is still in Chinese hands, though a hard struggle is continuing for its possession. Meng Yung-chien, a competent C.I.C. organizer, made a survey of this region on February 10, 1940. In his report he pointed out that formerly native type mines and smelters had produced 40% of all China's ore and 87% of the pig iron, Southeast Shansi being one of the most important centers of native iron work. His investigation showed that three counties of Southeast Shansi (Chincheng, Kaoping and Yangcheng) had formerly produced annually 45,000 tons of pig iron and 34,412 tons of wrought iron. Local small smelting furnaces numbered 680 and puddling furnaces 86. At present about one-third of the furnaces are operating, and half the workers unemployed.

Due to the wartime scarcity and high price of iron, Meng figured that it would be profitable for the C.I.C. to take over and rebuild a good deal of this industry, transporting ore and pig iron to Sian and farther inland by carrier. He estimated that 10,000 cattles of wrought iron could be produced and transported to Sian for \$2,150—where it could be sold at the prevailing price of \$5,000. This, of course, required efficient and centralized management. The Japanese have made strenuous efforts to occupy this rich region without success, but even a temporary industry would pay its way, while supplying the needed C.I.C. machine industry in the meantime, as well as national and guerrilla needs for munitions, etc.

Already, forced by circumstances, the local ironmongers in Chin-cheng had organized themselves into a marketing cooperative, though it was really more of a guild, Meng says. He estimated that \$100,000 was sufficient to organize the C.I.C. project initially. The furnaces are made of clay and bricks with a simple anvil and portable tools. A smelting furnace cost only \$150 to \$250, and a puddling furnace only \$250 to \$400. Even a few weeks of operation would pay back such capital, and the workers could move their tools to the hills if the Japanese should arrive.

VIII. THE EMANCIPATION OF WOMEN

Though the advanced women of China are far more emancipated in thought than those in India, Java, Japan, and perhaps even the Philippines, poverty has kept the mass of Chinese women in a very backward state. When one reflects on the hundreds of years that this sex in China permitted foot-binding, it would seem that their record is not one to be proud of. Yet women are now more alert to ideas of change than men in China, and have taken strong leadership in the past generation. Unlike other Orientals they are not bound in the toils of feudal religions. They do not waste their time embroidering thousand-stitch fetishes for the soldiers, or worshipping at Shinto shrines, as in Japan. They are making army blankets and even leading guerrilla warfare.

In all countries at war, women take on a new importance in industry. They also suffer much from the disruption. Widows and orphans, wives of soldiers at the front, and refugees must seek new ways of earning a livelihood. It is these who have been helped most by the C.I.C. In a larger sense, however, the movement for cooperative industry is an important vehicle for the true emancipation of Chinese women. In fact, it is the first time they have had a form of the vote in China, except in the Red regions. In the C.I.C. they receive equal rights with men. As Miss Jen Chu-min says, "Judging by what they are already doing here, in the Northwest, their future place in Chinese life can be one not only of independence, but more, of leadership in society." Miss Jen should know, for her Women's Department has charge of all the educational work in the Northwest Headquarters—for men, women and children. I don't doubt that their instruction includes lessons in the rights of women.

The best Women's Department of the C.I.C. so far is in the Northwest. It is much admired by visitors. This opened in April, 1939. By February, 1940, it had managed five primary schools with 590 pupils, 28 literacy classes for 569 women, 17 literacy classes for 531 local poor children, and eight night schools for 320 male cooperative workers as well as eight classes in textile training, graduating 400 men and women.¹ It is also responsible for the

¹ A letter from Miss Jen, dated July 12, 1940, states that seven primary schools

affairs of the women's cooperatives and for health work and home education among them. In January, 1940, the Department had 21 women's cooperatives in five towns. Members numbered 384, with 1,155 employed piece workers, all operating on a capital of \$41,000. During the nine months of 1939 these cooperatives produced goods valued at \$564,000, while over 160,000 pounds of woollen thread was made by women spinners outside the cooperative membership, together with 10,000 pounds of cotton thread. The Department has mobilized an allied army of nearly 5,000 women home-workers to make blankets and uniforms for the soldiers. It is hoped to organize most of them into regular cooperatives as soon as funds are available. Miss Jen states that her Department has charge of 6,000 women, 20,000 infants and 1,000 primary school children.

For all of the above work the Department used only \$63,000. It seems like magic. Classes were held over a period of nine months for 2,010 men, women and children for only \$10,000. Of this money, \$20,000 was contributed by the New Life Movement through Madame Chiang Kai-shek; \$41,000 was a capital loan from the C.I.C. and \$1,200 a loan for running expenses; while \$8,000 came from individual contributors.

"Garden City" is a model cooperative community recently started by this Women's Department for poor women and widows and orphans. One hundred children attend primary school, while 560 women are busy spinning 1,000 *catties* of wool daily for the army blanket program, while others make 75 uniforms a day. A textile training school teaches 20 women each term. Miss Jen plans to take care of 300 children in the orphanage, which requires \$50,000 to start and will cost about \$15 monthly per child for all expenses, including education. Garden City has its night classes, newspapers, discussions, meetings, and its own clinic and health supervisor.

Miss Jen has grand plans for the future, hoping to extend all phases of the work throughout the Northwest. She states that it takes about \$130 to put one woman into productive work in a cooperative, or about \$1,500 for an average size unit of 12 members. A primary school for 50 children costs \$2,600 for building and equipment and about \$200 a month for upkeep. The C.I.C. work

were then operating, with a roll-call of 760 pupils; 1,800 women had joined the literacy classes; 1,280 women were being trained in ten spinning and weaving classes; and 20 were enrolled in the Women's Vocational Training Class. "The total number of local women, refugees and wounded soldiers mobilized by us to participate in production has exceeded 60,000. We are operating three women's clubs, which have been joined by several thousand women."

for orphans and children is of great significance. There is no other hope of permanently solving the war orphan problem except teaching the children to help themselves. Indusco children wear neat little uniforms, with the C.I.C. triangle on their school bags, and are really an inspiration to the movement. They celebrated International Children's Day in Paochi and four of the ten prizes for oratory went to Indusco representatives. Contrast these refugee children of the working class with the hundreds of child beggars who line the streets of nearly every large town in China today, suffering from disease as well as hunger and cold. Yet every one could be taught a trade and help to earn his rice in the meantime, if the C.I.C. could secure several hundred thousand dollars a month for this work. Other orphanage work seems futile in comparison.

Miss Jen and her co-workers are exceptionally able and enthusiastic workers. Her reports are quite fascinating and her appeals for help irresistible. She wrote me a letter on January 4, 1940, saying "I hope you will be able to find time to read the report on our women's work in the Northwest. We feel that we are doing an important job to elevate the position of women in this pathetically backward part of China. The war is giving Chinese women their chance. We intellectuals are filling out empty theories in direct contact with the masses of our ignorant peasant countrywomen, and they are getting in return something of our spirit of emancipation. We are showing people everywhere that Chinese women—even the boundfeet—can stand up for themselves against the double oppression of outside aggression and inside conservatism."

Among the staff of 51 women leaders there are three returned students from universities abroad and nine other university graduates. Miss Jen receives only \$80 a month, however, and other salaries are sometimes as low as \$20. I wrote a letter asking for the background of these leaders, and the reply revealed the kind of personnel the C.I.C. is attracting:

Jen Chu-min, head of the Northwest Department, is one of the "fighting Hunanese." She graduated from a Shanghai college, then went to England in the spring of 1934. There she spent a term at Woodbrook Hall near Birmingham studying Social Administration, followed by a year at the London School of Economics. Three years later she returned to China, thinking, in her own words, that "I must bring all that I have learned, and lay it humbly before my people."

She taught at Hunan University awhile, then organized women's war work in her native province during 1937 and 1938. As

soon as she learned of the Industrial Cooperatives, she saw it as her life's work and immediately joined the staff in December, 1938.

Second in command is Miss Wang Ju-chi, leader of the Training School for C.I.C. Organizers. A law graduate from Fudan University in Shanghai, she taught school for awhile and also translated several legal volumes, including Dicey's "Law and Public Opinion", as well as contributing articles to many magazines and newspapers. In 1937 she went to Hankow, where she worked directly under Madame Chiang in the Headquarters of the New Life Movement until the fall of the city. She then went to Chengtu to work in the Y.W.C.A. and prepared a 100,000 word book on the Training and Leadership of Women Administrators. In the spring of 1939, she joined the C.I.C.

Miss Fong Chi is an economics graduate of China University. In 1937 she went to Hankow to work in the Headquarters of the New Life Movement, and in August, 1938, Madame Chiang put her in charge of hundreds of factory-girls evacuated to the Northwest. Miss Fong has put her former charges into cooperative production and as an Indusco leader says her "ideals find full expression."

One of the interesting C.I.C. leaders is Miss Pao Yi, niece of the famous Young Marshal, Chang Hsueh-liang. In an interview with a newspaperman, she stated: "Now is the time of our test. If we can show ourselves of real service and importance to the nation, if we can show ourselves able to undergo hardship, and able to stand on our own economic feet without the support of the men, then the position of women in China at the end of the war will be very different from what it was even in 1937."

In Chengtu, also, the Women's Department has charge of education, under Miss Li Tze-chen. This was started with \$1,000 from the Philippine Chinese Women's Relief Association. Nearly every cooperative has its weekly classes. A three-months training school for fine spinning and embroidery was conducted for 40 women for \$969 a month, including food, tools and materials. The mornings were spent in classes on cooperative principles, Chinese, arithmetic, and lectures on hygiene, music and "practice in holding meetings", while the afternoons were devoted to handicraft and the evenings to study.

In the Southeast Headquarters, Madame Chiang Kai-shek contributed \$10,000 for the initial women's work. What Alley did with this in Kiangsi was amazing. Here are some of the figures, each project including educational work in training the women in cooperative management as well as technical methods:

In Kiangsi Depot 1, \$890 sufficed for the following: a soy bean

unit of 7 members, a cotton weaving unit of 10 members, as well as training and organizing, ready for financing, four other units with 53 members to make mosquito nets, soy bean and dried meat products, and weaving.

In Depot 2, \$1,500 established women from disabled soldiers' families into a weaving unit of 32 members, a hosiery unit of 7 members, and a jam-making unit of 18 members, as well as putting 18 ordinary women members into a sewing unit, 10 into making meat products, and organizing and training a further 86 members in the same types of work, ready for financing.

In Depot 6 the sum of \$5,990 put 11 women into a sewing co-operative, 8 into weaving, 7 into hosiery, 10 into soap-making, 7 into powder-grinding, 43 into 6 dried meat units, 7 into rice milling and 7 into making drawing chalk. In addition it trained and organized 132 other women into nine similar cooperatives, ready for loans to start work.

In Depot 7, \$1,500 organized 40 women to make ramie sandals, 22 into weaving and 58 into spinning. In Depot 8, \$1,000 put 12 women to work making sandals and 14 in sewing, as well as organizing 13 to make mats and 15 for soy bean products.

IX. EDUCATION FOR DEMOCRACY

1. SCHOOLING IN SELF-HELP

The whole Industrial Cooperative movement takes on the nature of a vast training school for democracy in China, teaching men, women and even children the principles of responsible self-government, self-help and mutual endeavor. In place of the old feudal and patriarchal relations which obtained in the village and even in city industry to a large extent, it teaches equality and co-operative self-management. In every depot, people from several provinces work successfully together, denying the old provincialism so strong in Chinese society. Dialects intermingle and a new fraternity grows up. Nepotism and family exclusiveness are no longer necessary in the hard fight for existence, and a broader social and economic consciousness develops. Skilled workers from the cities return to the interior, leavening the backward level of thought. Intellectuals and students are obliged to make a close contact with the working class, to the benefit of both.

What an immense task it is to bring the elements of a new society to the China interior! Not only must people be taught cooperation and industrial methods. They must be taught to read and write and to learn accounting. They must be taught modern sanitation and community living. And they are being educated in an understanding of national problems and provided with the news of the day.

Voluntary cooperation is certainly one of the most revolutionary movements China has ever had. The curse of the country is individual and family selfishness and the inability of cliques and groups to work together without jealousy and constant friction. Chinese have seemed to be unable to understand loyalty in terms of equality. There is always the "superior and the inferior", the No. 1, No. 2 and so on down to the apprentice and the coolie. Because of this, it was freely prophesied that cooperative production would fail in China. Yet it has succeeded. Emergencies have broken down a thousand years of tradition. An important factor, also, is that the present leadership is democratic and has not brought bureaucracy into the movement, such as exists in the Government

and nearly all its enterprises.

Schools and training classes were found imperative as soon as field work began, yet it was extremely difficult to obtain funds for this basic work. Lu Kuang-mien financed the first organizers' class out of his own salary. The Government still gives practically no support to educational work, so outside contributions have created it.

Every Headquarters now has its training classes for organizers and accountants, as well as literacy schools and classes for training women and refugees in textiles and ordinary machine handling. Primary schools and nurseries are being started. There are altogether about nine nurseries, ten primary schools, three apprentice schools and seven training schools for refugee women, while new ones are being planned.

Let us look at educational work in the Northwest Headquarters:

On April 15, 1940, the Fourth Training Class for Organizers opened, preparing 20 students to be accountants, 10 to be organizers, 10 to work in the Supply and Marketing Department of the Union, and 10 to form a special promotion squad to carry C.I.C. into Chinghai (Kokonor). Director of this class, which has graduated 102 persons already in 3 months courses, is Liu Ta-tso, a graduate of the Sino-French University with experience in rural education in Kiangsi, who was formerly head of a Kwangtung middle school, head of a New Life Movement department in Nanking, and also director of educational work with the Air Force in Hankow and with the Military Affairs Commission.

Under the Women's Department in the Northwest there are eight primary schools in three villages, where a staff of 21 teachers takes care of 690 pupils. Several of the teachers are university graduates, some from abroad. Modern textbooks have been written by the staff. Poor children in the neighborhood are admitted as well as the children of cooperators. In addition, 17 Literacy Classes for 531 children hold forth two hours at mid-day for poor peasant children whose parents need them to work at home and who are therefore unable to attend Indusco primary schools.

There are 28 Literacy Classes for 560 women, in five towns, and eight night-schools for 320 male cooperative members.

Textile Training Classes of two months each have graduated 447 persons. Among these are 59 wounded soldiers, now working at wool-spinning in a disused temple, and 85 refugees from Honan.

Training Schools for Organizers are an imperative immediate need. Four have been established in Anhui, Kiangsi, Kwangsi, and Szechuan as well as one in Shensi. They must serve a wide

area. For instance, the Kiangsi-Kwangtung-Fukien Training School (established with Philippine Chinese funds) serves three provinces, though it has only four teachers and three part-time instructors. Applicants are so poor they must receive a food allowance of \$8 monthly. Cost of establishing and running such a school for one year, with 30 students a session and having four sessions annually, is about \$20,000. This includes buildings, equipment, salaries, food for students and all. Each school is turning out about 120 junior leaders a year, while some terms include 40 or 50 trainees. Lu Kuang-mien's first class operated on a monthly budget of \$980, with foundation expenses of \$1,000.

These schools accept students between the ages of 18 and 30 who have had a junior middle school education. They try to give elementary lectures in industrial chemistry, physics, and allied subjects, as well as cooperative management and accounting. Classes are lively and interesting. Alley got the idea of giving prizes for oratory, essays and scholarship and himself bought fountain-pens and loose-leaf notebooks for this purpose.

One of the things which impresses all observers familiar with the usual ancient Chinese scene is the progressive atmosphere surrounding Indusco centers. When Lowry Sinclair, an American school teacher, returned from a trip to the Southeast his first comment was: "I was amazed to find how modern the cooperative communities are." This is not only because some of the girl students wear shorts and the engineers all speak English and wear modern clothes. It is because modern ideas are infiltrating down into the mass of the membership, not only from the well-educated leadership but from ordinary city workers who have migrated inland. The tremendous pride which every member takes in his badge and posters and slogans and official business chop is an indication of the rise of human dignity and independence. At the frequent gatherings, there is a lively gabble, argument over local business problems, over how the war is going, even over international questions. Everybody wants to make a speech about something. Many casual travellers have been embarrassed at their keen questions—especially when they want to know about cooperatives in other countries and how the "international" cooperative movement is coming. (They have not received much help from this so-called cooperative internationalism so far, unfortunately.)

The Northwest has six Recreation Halls where social life and meetings and discussion groups are held, and others have been started in the south. Mass singing has been taken up with terrific enthusiasm usually set to Western music with Indusco words.

The original Indusco song in the Northwest was set to the hoochi-koochi tune that used to introduce Fatima at county fairs in the States. This limited repertoire was added to by C. F. Wu and an American visitor who got together to compose Chinese verse for the Budenny March. Wu also wrote a roundelay called "All Cooperate", with the refrain "Fellow countrymen, cooperate! For industry we fight, for construction we strive. Fellow countrymen, cooperate." Onward Christian Soldiers is another favorite tune. Of course, "Ch'i Lai" is the most popular—as everywhere in China—the national salvation song taken from the Manchurian volunteers.

The "Song of the Industrial Cooperatives" was composed by Sze Noh. The words are these:

"We are members of the C.I.C.
We unite our strength to produce and build.
With our flesh and our blood
We will form unconquerable forces!
Down with Japanese imperialism!
We have our strong bodies
Unafraid of the enemy's mechanized units.
For we are the army of the C.I.C."

Members are pathetically proud to see their children neatly dressed in Indusco uniforms, carrying schoolbags with the triangle embroidered on it to their own school, as they sing the Indusco songs on the way.

One of the most important educational influences is in the publication field. The Northwest Publications Committee puts out the "Kung Ho Monthly", which carries reports and plans from the whole region and studies in cooperative theory and technical problems. It is meant as a guide to inexperienced cooperators, and 350 cooperative units subscribe at a cost of 30 cents per copy. They also publish the "Kung Ho News", a new tri-monthly for popular reading. This carries personal and local items, and a section on current events and international news. Minutes of important meetings are printed, as well as new songs, stories and jokes and caricatures of C.I.C. "personages." This sells 390 copies at six cents each.

Before the Indusco movement can expand effectively, large amounts of money for education are required and these are not available from capital loan funds. In the spring of 1940 it was decided to make Chengtu the main educational center, and to start a large Industrial Cooperative Institute in order to train new thousands of personnel. Smythe, Riggs, Lapwood, Tayler and

other Chinese and foreign cooperative and industrial experts have volunteered to give instruction, and local universities have agreed to cooperate. A budget for Ch.\$1,000,000 was drawn up and outside contributions were requested. In August, the Philippine Chinese Women's Relief Association contributed a large initial sum, and other funds are being collected. This Institute is to have four departments under which all phases of Indusco training will be handled: technical training in textiles, chemicals, mechanics, metallurgy; business training in marketing, statistics, accounting and auditing; cooperative training in management and educational work; a publications department will edit textbooks, manuals and bulletins.

2. TECHNICAL TRAINING SCHOOLS FOR INDUSTRY

The Industrial Cooperatives are taking the leadership in creating technical training schools in the interior, to be taught by their engineering staff and other technicians. These schools are designed to provide training for engineering assistants, mechanics and technicians in all forms of industry. Lack of such training for the working-class has been one of the main factors in the inefficiency and backwardness of Chinese industry in the past. All the quantities of graduates of universities, at home and abroad, have done little to rebuild the economy of China. Few of them took technical courses to begin with, and these were unable to build modern industry partly because there were no trained subordinates to carry out the actual work and handle the machines properly. The sad story of waste and mechanical inefficiency is well known—in the army, the air force, the factory, on the railroads and bridges, wherever machinery and engineering has been at work. Efficiency of operation suffers no less than need for repairs.

It is fantastic to realize that nearly all the actual mechanical work in China is done by poor illiterate workers who know nothing of the machines in their hands except what their native intelligence can pick up in casual apprenticeship and observation. Electricians who have nobody to tell them of the nature of electricity. Truck and motor drivers who have no understanding of motors. Railwaymen who know nothing of engines. How any machine can survive is a mystery, yet strangely enough they do marvellously well in view of their lack of training. Clever hands and bright minds make up for mechanical knowledge. One of the most shameful things about education in China is the total neglect of the technician, who is too poor to go to school. This shame is also written large on schools where American funds have contributed

endlessly to the support of upper-class students who never have any intention of doing any actual labor. If even half this money from generous contributors abroad had been used to create technical schools for poor boys who so desperately needed help and who would have gone out and built with their hands, we should see a much more progressive China today. Instead, most missionary institutions have become fashionable finishing schools, and their way of despising the working-class has earned them the epithet of "imperialist."

Joseph Bailie was among the first to advocate that missionaries help the poor apprentice instead of the sons of wealthy officials. With Henry Ford's assistance, he saw to it that at least one hundred first-rate engineers received the best American training, and that some instructors gave this in turn to his apprentice schools in Shanghai on their return. Training the industrial apprentice is also dear to the heart of Rewi Alley and all the "Bailie engineers." They are anxious to keep alive the apprentice school tradition begun by Bailie, and are starting the "Joseph Bailie Memorial Technical Training School" for the purpose of helping promising boys to receive industrial training. To assist this school, friends of Bailie, Christians and others are contributing. The first contribution of US\$250 to the required \$70,000 Foundation Fund came from the Philippine Association for Industrial Cooperatives in China, followed by Ch.\$305,000 from the Philippine Chinese Women's Relief Association.

Frank Lem has volunteered to be superintendent of the school, which will have one branch in the south, in Kiangsi, and one in the Northwest where C. F. Wu will have charge. The Kiangsi site has been purchased and classes there will soon commence. The course will be two years, six months in classes and six in field work, alternately. After the \$70,000 required for the first two years it is expected to become self-supporting. Poor boys up to the age of 20 or so will be taken in from orphanages and elsewhere. After two years they will be able to work as engineering assistants, mechanics, etc., in the cooperatives. In appealing for help to the school, Alley wrote: "Will teach cooperation thoroughly. It would be great. Needed very badly indeed. It would buck our co-ops up no end, for it would be starting from the right end."

Another very interesting experiment in technical education is the "D.F.E. Cooperative Technical School for Hsiao Kuei", connected with the Baosiao School in North Shensi, Depot G-1. This is a branch of the Pioneer Unit of the Northwest International Center and was started with a fund of US\$2,447.69 from the

Philippines, though a Foundation Fund of US\$5,000 is required to guarantee maintenance for two years. Fifty of the brightest orphan *hsiao kuei* were selected for the first course, ages from 12 to 18. \$5,000 worth of machinery for the workshop was bought and five engineering returned-students from abroad volunteered as teaching staff. Students are being trained for two years as assistants in chemical engineering and as machinists, as well as in cooperative leadership. They spend half the day in classes and half in the workshop. The cost per student is \$18 a month, as prices in this region are very high. This includes food, clothing and dormitory, which is in caves on the hillside.

The original fund for this school was obtained by the appeal of an American social worker to 500 persons on her "Dear Friends Everywhere" mailing list. *Hsiao kuei*, meaning "little ghosts" or "little devils" is the term given in China to homeless boys, usually orphans, who attach themselves to the guerrilla forces or wander around in the front line regions. Their heroism has often been told by travellers. Many of them act as messengers, stable-boys, water-boys, buglers and cook-boys for the army and guerrilla units. Hundreds of them are active in the fighting zones, and they receive no quarter during battle.

The idea of helping these *hsiao kuei* originated in Chengtu, where church workers, missionaries and university professors raised a Winter Clothing Fund of Ch.\$9,000 under the chairmanship of the Rev. Andrew T. Roy. For lack of warm clothing, many of these boys die of pneumonia or have their feet and hands frozen. With the Chengtu money, the Industrial Cooperatives provided them with sheepskin mittens (costing US ten cents), part-woollen blankets (costing forty cents), cloth shoes (for twenty cents), etc. A cotton-padded winter suit costs about US\$2.00. A woollen sweater can be knitted for about \$1.00.

There is little hope of permanently solving the immense war orphan problem of China except in giving them training and jobs in industry, so they can earn their livelihood and become valuable citizens instead of potential menaces to society. The tragedy is that most of them die from hunger and cold, with help from nowhere. Others are being sold into slavery on farms, or they fall into the hands of the Japanese, for child-slavery is not yet abolished in China. The Japanese have sent a number of orphans back to Japan as household drudges, to make up for their lack of labor power.

These technical schools and others planned are in great need of textbooks on all kinds of industrial processes—chemistry, leather-

tanning, jute and linen-weaving, sugar-processing, machine-shop practice, to name only a few. English books are translated by the teachers and used in lectures. All Indusco primary schools and orphanages can institute ordinary technical training if funds are available. In 1939 the Philippine Bureau of Science sent 43 technical volumes as a gift to the Southeast engineering department.

3. ASSOCIATIONS OF CULTURAL WORKERS

It is interesting to speculate on the possibilities of the cooperative method in bringing together all the cultural workers of China for effective work. There are at present thousands of talented artists, writers, actors and musicians, some wandering in the interior and others trying to eke out a livelihood in the treaty ports. Many of these are practically destitute and others are working in make-shift jobs in order to keep alive. What is needed is some form of free association to make them self-supporting and self-managing on an economic basis. Their talents and training could be of utmost value to the millions of their countrymen in the interior villages, and their energies should be immediately mobilized to help raise the cultural level of the mass of the people.

The Chinese Government cannot afford to subsidize such cultural workers, as the W.P.A. has been able to do in the United States for writers, artists, musicians and actors. They must take the initiative themselves to create their own economic organization. It would seem, however, that the Industrial Cooperative movement now provides an excellent opportunity for them, particularly in regenerating and modernizing Chinese arts and crafts. The C.I.C. already has a few artists and writers on its staff, but it cannot afford to pay regular salaries for such purposes. These "brain workers" must organize themselves according to a similar cooperative constitution and try to become self-supporting. There are many artistic people abroad who would be glad to help raise funds to keep alive the long and splendid tradition of Chinese arts. Requests have already come to C.I.C. from abroad for China's famous artistic wares, and Chinese artists can help to revive this export trade.

For example, it would require only about US\$250 (nearly Ch.\$5,000 at present exchange) to start a cooperative for artists, working with the C.I.C., with the minimum number of seven members. C.I.C. could pay them small amounts for work ordered, and they could take outside contracts to keep up their financial condition. Such a cooperative might include a good textile designer (for cotton, linen, silk, wool and ramie fabrics); a designer

for embroideries and rugs; a designer for artistic metalwares—brasswork, jewelry, pewter, cloisonne; a designer for glass and porcelains (especially for the famous Kingtechen workers in Kiangsi); a poster artist for advertising (designing attractive packages, boxes, etc. and magazine covers); a drawing expert to copy technical machines and processes for C.I.C. technical magazines, and save the time of the busy engineers; a cartoonist and artist to illustrate textbooks, magazines, wall newspapers, etc., in a dramatic and interesting manner to clarify the meaning for the cooperative workers. A good photographer might also be included. If bombing ever stops, there will be a place for architects, too, in rebuilding the new towns of the interior.

It would be the duty of these artists to select old designs for use and to create new ones, to be responsible for dramatizing the C.I.C. movement and helping to increase the appeal of its constructive work to the public, as well as the sale of its products. The Chinese are a highly artistic people and they love the pictorial in all forms. The C.I.C. workers are already immensely proud of their posters and packages, though most of them are very amateur indeed.

These artists could also hold classes in C.I.C. technical and primary schools as part of the day's work. They could organize exhibitions of products. They could also arrange to hold art exhibitions in the various cities, which are always well attended by the Chinese public. In short, they could bring not only utilitarian help to the C.I.C., but also a little color and beauty into the lives of the Indusco communities, and raise the cultural level of the people of the interior.

Chinese artists today are too poor even to buy their materials. Oil paints, for example, must be imported at prohibitive cost. Our little Artists Cooperative could also arrange to have Indusco manufacture the needed canvases, water-colors, brushes, paper, oils, crayons, charcoal, pencils, chalk, etc., for all the artists in China. Many of them today are obliged to invent their own materials, but many more are unable to continue their work due to poverty. They could also improve fabric dyes and new colors for Indusco products.

Dramatics have become an essential part of mass education in China, and it is found that the people grasp a new idea much more quickly through this dramatized form. Indusco could use its own travelling theatre for this purpose, as well as providing the local public with a wholesome form of entertainment. Organized on a cooperative basis, such a theatre could easily become self-supporting after a few weeks.

Another group which could be mobilized for cultural work are the musicians. These cooperatives could not only survive through public entertainments, but could open schools.

Writers could form their own cooperative publishing associations, and reduce costs greatly through the cooperative method while guaranteeing their own economic security. Indusco will soon need its own writers' cooperatives to edit and publish its increasing amount of literature, its magazines, newspapers and books.

It is not necessary that such cooperatives of cultural workers should be a part of the Indusco organization. They could be quite independent. The important thing is to have such persons available in the interior, for most of them are doing nothing socially useful at present, but merely struggling for a bare living in the treaty-ports and cities. Yet they have an important place in the renaissance of interior China, and must find economic and organizational ways and means of taking the leadership of cultural change and improvement. As individuals they have little chance to keep alive; as cooperative groups they can surely become self-supporting, in exchange for services rendered. There is a place for both the old-style and the modern.

Organizing the individualist artist and intellectual producer in "self-governing workshops" is not a new thing. It is a democratic form that appeals to them, when the necessity for free association comes about. In Russia, for example, there have always been many such organizations even in Czarist days. There is at present the Khudozhnik, a cooperative association of 1,500 painters, sculptors and architects. This provides collective studios, organizes exhibitions for the sale of their works, and serves as a credit cooperative. It also runs a color factory for art materials. The photographers have their own cooperative artel, as well as the artists working in theatre production. One group of artistic workers in Palekh have a cooperative society for making painted and lacquered boxes, trays and plaques. In Russia also there is a whole series of cooperative publishing enterprises of authors and journalists, many of which are organized among the republics for publishing works in the languages of the national minorities. A society of scientists in Leningrad has a publishing cooperative house for scientific works. Most of the books and pamphlets in foreign languages are published by the Cooperative Society of Foreign Workers in the U.S.S.R.

X. MODERN MEDICINE FOR THE VILLAGE

1. COOPERATIVE CLINICS AND HOSPITALS

The inter-provincial Industrial Cooperative system provides an excellent framework for modern medicine to reach the Chinese village for the first time. Past experience shows that this cannot be done except by some form of group medicine and an inter-connected medical system, which will reduce costs to the economic level of the villager. Such cooperative clinics and hospitals as are set up during the war will do much to expand the inadequate facilities at present. It is possible to establish many of these near the front-lines, with the assistance of the C.I.C. system, to supplement present army medical service as well as to take care of civilian war victims and casualties in guerrilla areas. On a long-term program, cooperative medicine in the village, assisted by the local governments, is the only hope for epidemic prevention and public health work on any effective scale. Otherwise these efforts must depend upon uncertain subsidies and temporary measures.

There are 10,008 registered medical practitioners in China, plus 5,002 nurses, 3,012 dispensers and 650 pharmacists. According to Dr. F. C. Yen, 565 doctors have been recruited and conscripted for army medical service, together with 370 reserves. Including all other registered doctors now doing army and Red Cross service and practicing medicine in Free China today, there cannot be more than 20% to 30% of the 10,000 that should be largely available for this emergency. Most of the others are still in Shanghai, Hong Kong and other coastal cities. What is needed is some workable method to mobilize these doctors for work in the interior, and give them economic security so they will not hesitate to sacrifice their city practices for rural and emergency work. Grouped together, doctors can make a success of modern medicine in the interior. Individually, it is too much of a risk, which few are willing to take even in these conditions of desperate need. Dr. F. C. Yen, head of the National Health Administration, has said that "state medicine is being adopted as a system best suited for China both for economic and other reasons." It might be added to this, that state medicine can be supplemented by cooperative management, which will put a good deal of rural medical work

on a self-sustaining permanent basis, without so much dependence upon Government subsidy.

The Industrial Cooperatives are eager to organize a good medical service and public health program, though funds for this work are extremely difficult to obtain. By producing much of their own equipment and supplies, costs can be greatly reduced and the system can become self-sufficient.

The first Indusco hospital, of six beds, was established in April, 1939, in the model "Indusco Town" in west Shensi. A bed costs less than U.S. ten cents a day. This hospital, with an out-patients department, one ward, one operating room, a dormitory and kitchen, was operated by Dr. Tang Wen-ho, a Christian cooperative enthusiast, for less than US\$800 during the first year, including the salaries paid to one medical assistant, one nurse, one student nurse and one business executive. Total expenses during the first year were Ch.\$8,227.02 and local income for fees amounted to \$1,667.60. Other funds were provided by contributions from the local C.I.C. Technical Department, the Hongkong International Committee, the London Lord Mayor's Fund, the American Advisory Committee, and private contributions from Rewi Alley and Miss Thompson of the China Inland Mission.

Registration fee for cooperative members is set at ten cents a visit, and 20 cents for outside patients, with medicine and dressings costing 20 to 30 cents for members and 40-50 cents for outsiders. Out-calls are fifty cents in daytime and \$1 at night; double for outside patients. Operations are made free of charge for cooperative members and paid for by outsiders according to circumstances. A good deal of free charity work has also been done for destitute refugees, as well as members too poor to pay at the time.

Dr. Tang had vaccinated all the 5,000 or so nearby cooperative workers and 1,000 other villagers, within a few weeks after opening the hospital. According to his report for the year April, 1939, to March, 1940, Dr. Tang had handled 3,347 clinical cases, including 53 different diseases. These ranged from 50 cases of typhus fever, 115 of malaria, 48 of goiter, 154 of influenza, 47 of syphilis and 51 of whooping cough, to 103 crush wounds, 13 gunshot wounds and six of dog-bite.

Dr. Tang has made several Public Health surveys. Of the town's 252 cooperative members a physical examination showed only 28.2% in good health. A cross section of the local village population, including 1,896 people, revealed that 62.0% had trachoma; 9.8% goiter; 7.9% dermatitis; 6.1% venereal disease—and only 14.2% were in good health. On May 1, 1940, the C.I.C.

organized a general hygiene movement for cleaning up the whole village, building public wells, etc.

This type of work by the C.I.C. is not based on charity or abstract improvement. Health is essential to the industrial efficiency and the profit and loss on the balance sheets of Indusco societies. Epidemics are a vital concern, hence village medicine and public health in Indusco regions are economic necessity. It is on such a basis as this that medical work can really develop and become effective in China.

Dr. Tang is now starting a new hospital in east Shensi, and the alert Women's Department in the Northwest Headquarters has started its own clinic, with a first-rate nurse in charge, Miss Yang Teh-chi, a graduate of Peking Union Medical College with seven years of experience in Shanghai, and three other competent nurses. Initial costs and running expenses were met by a grant from the 1939 profits of the Paochi Joint Store and a contribution from the London Lord Mayor's Fund. These nurses are actively promoting public health and spend part of the day visiting homes and co-operative societies. Within one month of opening, the clinic had handled patients numbering 249 cooperators and 19 school children. It had given 272 treatments and 1,230 vaccinations. The nurses had given 145 private talks on public health and 398 group lectures, and had made 119 visits. Monthly running expenses are \$200 (less than US \$20) a month for the clinic.

In her original appeal for help to start this clinic, Miss Jen Chumin stated: "At present the Women's Department, with its 6,000 women, 20,000 infants and 1,000 Indusco Primary School children, has no medicine at all. C.I.C. health service is so far limited to the hospital in S."

One clinic exists in Chungking, one in the Southwest and one is being started in Chengtu, where a hospital is also planned. Every headquarters is begging for help along this line. In the Southeast, Lang Wong has submitted a budget for a badly-needed hospital, asking for \$6,650 for hospital equipment and buildings, and \$960 for monthly running expenses, until the hospital could become self-supporting.

The present possibility of bringing modern medicine to the China interior may well challenge the imaginations of doctors everywhere, and particularly those institutions which have given so much money in the past without being able to establish a financially sound and self-supporting provincial system. Disruption and war suffering create the urgent necessity. New industry and new forms of organization create the economic possibility.

2. MAKING MEDICAL AND HOSPITAL SUPPLIES

One of the urgent needs to engage the attention of the Industrial Cooperatives was the manufacture of hospital supplies—surgical cotton and gauze, medical alcohol, drugs, first-aid kits, stretchers, mosquito nets, mattress protectors, blankets and clothing for the wounded. According to Dr. Robert Lim one-third of Chinese Red Cross expenses go for the purchase of bandages and medical cotton, formerly imported from India and elsewhere.

In 1938, the Northwest Headquarters rushed through in six weeks an order from the Ministry of War for 30,000 pounds of bandages and 30,000 pounds of medical cotton. Over 90% of their canvas production goes regularly to the local Red Cross to make stretchers. One foreign mission hospital in Sian buys its scrubbing brushes from Indusco among other things and placed an order for \$4,000 worth of medical supplies.

All headquarters are busy with these orders which come from the Army, the Red Cross and its auxiliaries, the American Bureau for Medical Aid to China and elsewhere. Medical cotton and gauze cooperatives are more cheaply established than any other kind. Ten persons can be put to work for US\$50 or 10 sterling pounds. Indusco produces a pound of gauze bandage for \$4.40 and one of cotton for \$1.60.

One of the largest units is in southwest Hunan. It is turning out daily from 1,000 to 1,500 pounds of grease-free absorbent cotton and 1,000 pounds of gauze. It also provided 10,000 first-aid bags in preparation for the Japanese attack on northern Hunan. By December, 1939, this cooperative had filled orders for the Central Army Medical Department for 20,000 pounds each of cotton and gauze. The Szechuan-Sikong Headquarters turned out one order for 6,000 bolts of bandage cloth. In Sian one cooperative received a recent order for 20,000 pounds of cotton and gauze for local hospitals.

The Anhui International Center is making medical cotton out of ramie fibre, and the same process is used in other regions. The New 4th Army in Anhui and the 8th Route Army are making useable surgical instruments out of old rails torn up along the route of Japanese troop trains. Indusco expert steel-workers and machine-shops should be able to rival this accomplishment.

Making drugs is a specialized science requiring many chemists and pharmacists and Indusco has made little progress along this line as yet, but plans are afoot. There are nine cooperatives now making western medicines from native products, one in Kiangsi,

one in Yunnan, one in Chengtu (which puts out good vaseline from local vegetable oil) and four others in the Szechuan-Sikong Headquarters, and two in Shensi. One society is making surgical instruments.

Indusco has drawn up a list of 29 modern medical drugs and supplies which it can arrange to manufacture on order—everything from lysol to vaseline, ether and adhesive plaster. The list includes: copper sulphate, tannic acid, silver nitrate, mercury bichloride, iodine crystals, potassium iodide, carbolic acid, medical soap, sodium chloride, sulphur sublimate, zinc oxide, zinc sulphate, bleaching powder, alcohol, bismuth subcarbonate and nitrate, iron ammonium citrate, magnesium sulphate, glucose, c. p., sodium bicarbonate, plaster of Paris, antimony et. pot. tartr., and mercuric oxide. Indusco chemists state that many medicines can be made easily and inexpensively as by-products of the coal and coking and mining industry, etc.

This branch of work is of great importance, especially now that the full-dress European war is on, increasing prices. Imports are prohibitive in cost due to exchange and transportation costs. Until a considerable native industry on a mass production basis is developed, it is futile to hope for an expansion of the use of modern medicines in China at the present economic level. Primitive medicines have been made and sensible household remedies applied in China for hundreds of years and some have been adapted to modern use. For example, many a Chinese ancestor has been saved from burns by a mask of wet tealeaves, while tannic acid treatment is a recent discovery in the West. Shark's fin and bird's nest soup were doubtless an invalid diet originally—due to their high gelatinous protein content. There is an endless market for medical products in suffering China and it is earnestly to be hoped that eventually the cooperatives will at last start the wholesale manufacture of good tested modern drugs. Even in the United States, pharmacy did not get a start until the Civil War made local manufacture imperative.

For the establishment and equipment of hospitals, Indusco has its own ready staff. Aside from carpenters, masons, builders and furniture-makers for the physical labor, it can supply glass, thermos bottles, enamelware, cutlery, dishes, mosquito nets, lamps, bedding, towels—all the things of ordinary use, from bed slippers to flash-lights and bells.

The China Defence League in Hongkong, which is anxious to support home industry, has ordered a quantity of hospital supplies from the C.I.C. Such orders included \$4,000 worth of bandages,

cotton, padded vests and stretcher canvas; \$5,200 for 1,000 pounds of medical cotton and 2,000 pounds of gauze; \$4,000 worth of medical supplies; \$4,000 worth of camphor, peppermint and menthol; as well as \$5,500 worth of blankets for the wounded. The American Bureau for Medical Aid to China ordered \$1,313.87 worth of mattress protectors for Dr. Robert Lim and other supplies.

In the isolated Northwest International Center one of the first cooperatives started was a versatile drug factory, which is manufacturing medicines, as well as alcohol, soda, soap, ink, tooth powder and chalk. This unit recently appealed for \$20,000 to improve its laboratory and add units for medical cotton and gauze. It can then supply the International Peace Hospital, the volunteer Indian Medical Unit and other hospitals with necessities, the lack of which has been greatly hampering their work.

This C.I.C. society works in collaboration with another large drug factory started in Yen-an in January, 1938, by the local authorities. The latter employs 100 persons, including several good pharmacists and chemists, and makes thirty different standard foreign drugs and vaccines, as well as some native remedies. The cost is found to be five or ten percent. of that paid for medicines brought in from the outside.

XI. SKILLED LABOR AND REFUGEE RELIEF

The original idea of the Shanghai Indusco founders was to save the skilled workers for China, to organize them quickly and spontaneously into production before the Japanese took them over in occupied areas, or before their valuable training and abilities were lost through death and disease and the demoralization of poverty and hunger. The movement did not get started quickly enough to serve this purpose effectively. As a result, more skilled workers are employed by the Japanese than by the Chinese today, and there is a shortage of trained labor in the interior, while the Shanghai labor market is flooded.

In 1927 the total number of industrial workers in China was estimated at 2,750,000, while handicraft workers (including native type miners, metal smiths, etc.) numbered about 11,960,000, and included 320,000 engaged in spinning and weaving.¹ The total was estimated at about 15,000,000. At the height of the labor movement in 1927, the All-China Labor Federation held in Hankow estimated the total number of organized labor at 3,000,000. A considerable number of these were killed in the civil war that followed, not only in the cities but after they had joined the Red armies, including thousands of miners from Hupeh.

In 1933 there were estimated to be 1,500,000² modern factory workers in China, of whom over a third were in Shanghai, and just before the war in 1937 the figure was usually given as 2,000,000. The majority of these are now unemployed in the cities, unable to get to the interior, though some have joined the army or gone back to the farms and others have been re-employed in Shanghai and elsewhere.

No reasonably accurate estimate of the number of refugees in China can possibly be made, and the figure changes daily with war and flood conditions. At the height of the disruption in 1939, when the Japanese were occupying the coast and moving rapidly inland as well, one estimate was that sixty million individuals had been displaced, of whom perhaps fifteen million were nearly destitute. In the spring of 1940, George Fitch, of the Y.M.C.A. in

¹ From tables in *Facing Labour Issues in China*, by Lowe Chuan-hua, 1933.

² From tables in *Facing Labor Issues in China*, by Lowe Chuan-hua, 1933.

Chungking, stated to the writer that he usually used the figure forty million. The C.I.C. generally give Alley's estimate of thirty million influx. In 1939, the Chinese Government estimated that 15,000,000 persons had migrated to the interior from the coastal provinces, at which time 22% of China's territory had been occupied by Japanese troops, normally containing 42.5% of her population.

Many of these refugees go back to their farms or homes in the towns when the war zone shifts, but new wanderers take their places in the vast ebb and flow of humanity.

Obviously no adequate measures can possibly be taken to seriously mitigate the suffering of these masses of people. Nor will a peace go far toward relieving this economic problem, for vast unemployment and poverty are constant in China's social life, and this will be intensified by the disruption for years to come. The only fundamental hope is to put them into production—on the land and in industry.

The most important effect of the Industrial Cooperatives on the refugee problem is indirect—by reviving economic life generally; and by utilizing the products of farm and mine and other raw material producers and by providing commodity goods and keeping wartime prices down. A vast outlay of capital would be required to seriously affect the refugee problem and unemployment. In the meantime, however, the C.I.C. is employing about 65,000 workers, each of whom supports from two to five dependents. Thus it provides a direct livelihood for perhaps 250,000 individuals. The most important thing is that it is saving many of the best elements of the working-class from starvation, and utilizing their training and ability to advantage. About 50 to 60% of the Indusco workers are refugees, while others are unemployed local workers and women. Nearly all the workers in the Southeast and Northwest Headquarters are said to be refugees, while many have also been absorbed in the Southwest. Szechuan has only a few and Yunnan practically none.

With its depots in all provinces, the C.I.C. is able to organize refugee relief on a productive basis better than other organizations, and it has offered to collaborate with them on the general problem, if funds can be raised. For example, in July, 1939, Alley drew up a project in the Southeast for 2,000 refugees from Kiangsi, Fukien and Kwangtung costing \$68,000 during the course of which the C.I.C. would train them to become self-supporting. He estimated that four months were required for training and three months additional to become fully self-supporting in the C.I.C. That would be a cost for food and training per person of about \$34 (less

than US \$3) for seven months. That, of course, does not include the capital required for machinery in setting them up into cooperatives, which is estimated at an average of about US \$7 each.

Frank Lem drew up a refugee plan for southern Hunan. In the C.I.C. Headquarters town he estimated that there were 7,000 refugees, most of them begging on the streets, of whom about 5,000 were women and children. When the Provincial Government stopped giving its ten cents daily relief allowance, the situation was desperate and Lem sat down and wrote up a "Live-through-Work" program which he submitted to relief groups. The British Ambassador, Sir Archibald Clark-Kerr promptly took it up with the London Lord Mayor's Fund, which granted \$20,000. The American Advisory Committee, under John Earl Baker, also gave \$20,000—specified to be used only for feeding women and children for six months.

The Northwest Headquarters also drew up similar plans. It was prepared to take 10,000 Yellow River flood refugees from Honan, of whom it was estimated that about 2,000 could be organized into cooperatives. The three-months budget called for \$250,000 including transportation costs, food, clothing, and building 2,000 caves for homes. In the meantime all competent persons would be trained and organized into cooperatives for raising sheep, weaving wool, making leather goods, spinning and weaving, etc. The average capital required for each unit of 40 members was \$4,000. This \$250,000 was never received, however, so the C.I.C. had to content itself with doing the best it could.

In May of 1940 another disaster struck in the north where about six million flood refugees in South Hopei faced famine, and the C.I.C. volunteered to assist by setting up depots in south Hopei and moving other victims to south Shansi. In an appeal for \$100,000 to get this work under way, the C.I.C. stated: "If conditions were normal this would probably be considered the greatest disaster in North China in modern times. As it is the situation has been rendered worse by the Japanese who, hoping to wipe out the guerrillas in certain districts, cut the river dykes and turned machine guns on the multitude of peasants who tried to repair them."

So far only HK \$6,000 from the American Advisory Committee has been given for this project.

In another field of relief for refugees, wounded soldiers and others, the C.I.C. has volunteered to take orders from any organization for many kinds of necessary supplies, to be delivered by its depots in all provinces: Woollen blankets can be ordered for \$10;

two-piece cotton-padded winter suits for \$15 (it is estimated that 1,000 suits can be made in most Headquarters in a week, while the Northwest can turn out 1,000 in a single day). Padded vests can be made for \$4.40. A pound of medical cotton costs \$1.50 and surgical gauze \$4.40. Socks, towels, leather goods, canned beef and milk, sweaters, stretchers, mosquito nets, medicines, are also on the list.

The amount of money which the C.I.C. has received from relief organizations is pathetically small—less than \$250,000. Yet it is in a position to actually build up permanent organizations where the need is greatest—near the war zones. There has been much popular criticism of the Red Cross and Church Relief groups because they have not sponsored productive relief through the C.I.C. to any extent, while spending their money mostly on the “soupkitchen” type. The American Advisory Committee for Civilian Relief reported that of funds received from the United States from late 1937 to the end of 1939, it had allocated in China Ch.\$3,397,966.82, US \$117,602.40, and Hongkong \$3,000 for food, clothing, shelter and medical aid.

Altogether the American Advisory Committee has given about \$94,000 to the C.I.C. One project they are supporting with \$4,500 is Textile Training Classes for refugee girls in the Northwest. Another is a grant of \$4,800 to the Northwest hospital. The Lord Mayor's Fund also gave \$5,000 to the Northwest Women's Department, and \$1,000 to the hospital. The British Relief Fund gave \$50,000 to put refugees into gold-washing.

Figures released on April 4, 1940, by the National Relief Administration state that a total of \$37,000,000 had been disbursed by the N.R.A. from the time of its organization in April, 1938, to the end of 1939, which took care of 7,600,000 refugees—or an average of \$5 per person over a period of nearly two years. In addition local government organizations had given relief to 5,700,000 refugees, and private relief organizations to 7,400,000 refugees. The total number of persons who received relief is 20,700,000. According to Chang Fu-liang (“China Weekly Review”, July 20, 1940), “50,000,000 lives involved in this unprecedented population movement is no exaggeration.” He states that “there are 214 homes under both governmental and private auspices throughout the land, caring for 160,000 war orphans.”

XII. FRIENDS AND SUPPORTERS

1. IN HONGKONG AND THE INTERIOR

The Industrial Cooperatives are an admirable channel through which foreign contributions can help China effectively, and as soon as the work became known sympathizers abroad and in China began spontaneously forming promotion committees. Over Ch.\$1,000,000 has been given from foreign sources since 1938. Even more important is the spirit of cooperative internationalism being created, working toward a common program for democracy and non-imperialist economic development. In a world being devastated and conquered by Fascist and powerful imperialist forces, this becomes of vital consequence in the present international balance of power.

Altogether there are about 70 members of promotion committees in Shanghai, Hongkong and Chengtu, about half of whom are Americans and British. All committee work is on a purely voluntary basis and the total amount of disinterested, selfless devotion that has gone into this cause is undoubtedly greater than for any other individual movement since the war began, if we except missionaries, who, after all, get their salaries paid. None of the committees accept any subsidy or salary from the Chinese Government. In a world swarming with subsidized agents of various Governments, it is a relief to know this fact.

Hongkong is the headquarters of promotion work in China, and the Hongkong Promotion Committee for Chinese Industrial Cooperatives, with 40 members, was organized by Miss Ida Pruitt in February, 1939. Miss Pruitt met Alley accidentally in Chekiang at the end of 1938, and has since then spent her entire time, and much of her life savings, in creating support for the C.I.C. A graduate of Columbia University and of the Massachusetts General Hospital in nursing, Miss Pruitt was until 1938 head of the Social Service Department of the Peking Union Medical College. Born of China missionaries, she has worked intimately with the Chinese for about twenty years, and it is her belief that the Industrial Cooperatives are the most effective method for providing a basic solution for pathological, social and economic conditions in China.

Other Americans who have actively worked in Hongkong are

Miss Elsie Fairfax-Cholmeley and three young schoolteachers: Theodore Herman, a Quaker; Donald M. Allen of Lingnan University and Lowry Sinclair, of Brent School, Baguio.

Many young Americans and Britons have sent applications to join the movement, but unfortunately all must come at their own expense, as no funds are available for this purpose.

I have already mentioned most of the many Chinese who have taken the leadership in promoting the Industrial Cooperative movement. Madam Sun Yat-sen serves as Honorary Chairman of the Hongkong Promotion Committee, and her influence has been most important in establishing the integrity of the movement and in interesting new support, especially among overseas Chinese. Through her efforts large sums were obtained from overseas Chinese in the Philippines, Java and elsewhere. Mr. P. N. Chung, the well-known Manager of the Central Bank of China, is Chairman of the Hongkong Promotion Committee, other officers being S. J. Chen, J. M. Tan and Chen Han-seng.

In 1939 the Chengtu Promotion Committee was formed with General Ho Poh-hen, Commissioner of Reconstruction for Szechuan, as Chairman and three Vice-chairmen: Dr. Lincoln Dsang, President of West China Union University; Dr. Y. G. Che, President of Nanking University; and Dr. J. S. Kinnard, Professor of West China Union University. The two secretaries elected were Mr. Wellington Meng, former Secretary-general of the local Y.M.C.A., and Dr. Ruth Weiss. Other members are: Dr. E. H. Yeh, of the Military School; Dr. Frank Price of Nanking Union Theological Seminary; Dr. Wu Yi-fang, President of Ginling College for Women; and Dr. Lewis S. C. Smythe and Dr. Charles H. Riggs of Nanking University.

Missionaries in China have everywhere assisted the C.I.C. even in the most remote places, spending their time freely on this work in addition to their other heavy duties. In Chengtu Dr. Smythe and Dr. Riggs have served as unofficial Technical Advisors without remuneration since 1939. I have already mentioned them in connection with the army blankets, as well as J. B. Tayler.

While in Nanking, Dr. Smythe had once started an experimental wool-weaving society about 1935, so he already had experience in this type of cooperation. He has written lectures for the Indusco training schools to be used as a special textbook, and also collaborated with Mr. W. H. K. Campbell, Alley and others in drawing up an improved Constitution for the C.I.C. societies. Mr. Riggs has used his mechanical genius in perfecting machine technique.

In the "brain-trust" in Chengtu also, Mr. E. Ralph Lapwood is giving invaluable assistance, especially in the field of collecting accurate statistics and supervising and checking reports from all headquarters. He was released from Yenching University for a year or two to assist the C.I.C. This small group of modern-minded missionaries now in Chengtu are among the finest that have ever worked in China and have possibly done more to increase respect for the fundamental teachings of Christianity than hundreds of church-builders in the past, who so often failed to give their spiritualism the practical application without which it has only form and no vital content for the Chinese.

Aside from purely voluntary external support, the Industrial Cooperative movement in the field has grown up with less foreign assistance and personnel than any similar work in China, however. Until 1939 Alley was the only foreigner officially connected with the C.I.C. though J. B. Tayler was later requested to serve as an official Technical Advisor, also, as well as E. R. Lapwood. There are several German refugees and two or three foreign mechanics employed in the field work, but all other help has been entirely voluntary. Except in Lanchow and Chengtu, the entire technical management has been in Chinese hands. The Chinese are very proud of this fact, for there is usually in China a tendency to resent foreign personnel or missionary leadership as "imperialist" or patronizing. The good Chinese cooperators in the C.I.C., however, fortunately do not take this narrow Nationalist viewpoint, and place great hope in the international cooperation given to their movement.

2. THE INTERNATIONAL COMMITTEE FOR C.I.C. PRODUCTIVE RELIEF FUND

As the work developed it was found necessary to establish a central liaison committee for the whole network of international promotion activity, and Hongkong was the logical place for this. Thus on July 21, 1939, The International Committee for Chinese Industrial Cooperatives Productive Relief Fund¹ was created to serve as trustees for contributions and private loans on the principle of the revolving fund. This idea originated with Mr. Alfonso Z. Sy Cip, President of the Philippine Chinese General Chamber of Commerce, and was welcomed in Hong Kong. Mr. Sy Cip and Mr. Yu Khe-thai, a leading Chinese businessman, agreed

¹ The address is P.O. Box 222, Hong Kong, cable "Indusco". The office is in Room 604 National Bank Building, Ice House Street, Hong Kong.

to represent the Philippines Chinese on the committee, while Dr. Walter Brooks Foley was elected to serve as the representative of the Philippine Indusco Association, of which he is President.

This International Committee was extremely fortunate in securing the leadership of the Right Rev. R. A. O. Hall, Bishop of Hong Kong, as Chairman. Bishop Hall, one of the younger and more liberal leaders of the Church of England, was an enthusiastic supporter of the C.I.C. from the moment he learned of it and has given the movement whole-hearted assistance and commendation. Though rather a new arrival in China, he had wasted no time in getting acquainted with the multifarious problems of the country and plunged into relief and social work immediately. He is probably the busiest person in Hong Kong, yet he takes an active and responsible leadership of the International Committee. In the spring of 1940 he made a trip to Chungking, Kunming and Tali, during which he investigated the work of the Industrial Cooperatives. On his return he stated that he was "more convinced than ever of the importance of the movement in general, and of the International Committee in particular."

This Committee has 18 members at this writing, though new members are soon to be added to represent their respective local committees abroad, as well as new supporters in China. Vice-Chairman and Treasurer is S. J. Chen, Manager of the Bank of China in Hong Kong, who is considered one of the most efficient, honest, and progressive bankers in the country. When his name was mentioned in conversation, a leading overseas Chinese banker said to me: "Nobody needs to worry about what happens to their money while S. J. Chen is in charge of the accounts. I've had dealings with him for years." Mr. Chen's famous chief, T. V. Soong, Chairman of the Board of Directors of the Bank of China, is also a member of the Committee and a strong pillar of support, as has been described under the chapter on loans.

Chen Han-seng, the efficient Secretary, is well known for his research studies for the Institute of Pacific Relations, and resided in the United States for several years prior to 1939. His book, *Landlord and Peasant in China*, is a standard on the agrarian question, and Dr. Chen is considered a first-rate economist and research student, as well as one of the shrewdest political analysts in China.

Rewi Alley serves as Field Secretary of the Committee. Other members are: Findlay Andrew, of Butterfield & Swire; Alec B. Camplin, Hon. Chief Consulting Engineer for the C.I.C.; P. N. Chung, Manager of the Central Bank of China, Canton Branch; Frank Lem, Chief Engineer of the C.I.C.; T. Kai-liang, Manager

of the Bank of Canton; Homer Ling, Manager of the Foo-shing Trading Company; Hon. M. K. Lo, Member of the Hong Kong Legislative Council; Miss Ida Pruitt; Edgar Snow, the American author; and Mr. J. M. Tan, partner in Wong, Tan & Co., Chartered Accountants.

This trustees' committee is now responsible for handling all loans and gifts to the C.I.C. other than Government financial arrangements. It cooperates with Dr. Kung and the C.I.C. Central Headquarters, but has no direct connection with the Chinese Government. Unless otherwise earmarked or used for social services, contributions are conserved in a revolving fund loaned out to cooperatives in the field at 5% interest, to be re-loaned as repaid. Five percent of the original is deducted for a Sinking Fund, and a small percentage of the repaid interest is to be held for office expenses. Requests for help and budgets are received from the various field headquarters, and the Committee votes on its allocations in accordance with their importance and urgency. Through its banking connections, the Committee is responsible for honest administration and safe remittance of funds to the Headquarters and Depots and for reports concerning their use and repayment. It has a most difficult job, which it handles with extraordinary despatch and efficiency. Monies received are put to work in the field as quickly as possible, with a minimum of delay and complication.

By July of 1940 the International Committee had handled contributions amounting to nearly Ch. \$1,000,000 as well as a long-term capital loan of Ch. \$1,000,000 from four banks, and other small loans from abroad as described in the chapter on loans. Of this \$1,131,260 was invested in the Southeast provinces before May, and the rest in the other Headquarters, including some front-line industry where bank loans hesitate to invest. In the beginning there was a desperate need of Special Funds for social services and education, so the International Committee assisted also in building up training schools, clinics, etc.

The International Committee holds meetings once a month and the Secretary makes a detailed report on all activities. All members serve without salary or expenses. Its printed constitution and by-laws were carefully drawn up to meet all contingencies. As stated in the chapter on loans, Dr. T. V. Soong has arranged for the Bank of China to underwrite private loans through the Committee up to 50,000 pounds sterling. The Central Bank of China has also agreed to guarantee such loans up to 40,000 pounds sterling.

3. IN THE PHILIPPINES, JAVA AND INDIA

The Philippines were the first country to organize outside support for the Chinese Industrial Cooperatives, and especially overseas Chinese there. Over Ch. \$700,000 has been contributed since October, 1938.

On April 20, 1939, the Philippine Association for Industrial Cooperatives in China was formed in Manila, with Mrs. Paul V. McNutt, wife of the United States High Commissioner, as Honorary President, and Dr. Walter Brooks Foley as President. Mrs. McNutt sent out letters requesting a hundred influential citizens to join, which were promptly accepted. Later in Washington Mrs. McNutt continued her interest and consented to head the Washington committee.

When Mrs. Francis B. Sayre, wife of the new High Commissioner, arrived in the islands she immediately agreed to become Honorary President and took an active part in the work. She requested a further hundred members to join, so the Association now has 200 members, each responsible for the payment or collection of an annual membership fee of 14 pesos (US \$7), the amount required to give one refugee a job in Indusco. Mrs. Sayre also made an excellent radio broadcast in Manila, recorded for the United States also, appealing for help to the work.

The extraordinarily good work of this Association has been largely the result of the constant activity of Dr. Foley (Minister of the Union Church) and its Secretary, Mrs. W. R. Babcock, who took the leadership in creating the Philippine movement.²

The membership includes most of the influential leaders of the international Philippine community—Filipinos, Americans, British, French, Spanish, Swiss, German and even one Igorot Episcopal church worker. Among them are the heads of nearly all the universities and churches, of the Red Cross, Y.M.C.A., Y.W.C.A., etc., as well as prominent business executives, editors, lawyers, doctors, nurses, engineers, professors, social service workers and national women leaders. The Association is far the best-supported China aid committee ever organized in the Philippines, aside from the purely Chinese groups.

The little gold-mining town of Baguio, in the mountains of Luzon, is an interesting example of what is being done by small

² Miss Anne Guthrie of the Y.W.C.A. in the Philippines is another of Indusco's best supporters. She collected over \$1,000 US currency during a trip to the United States, and has promised to keep up her interest while in India, where she has been transferred by the Y.W.C.A.

committees. Within a year and a half the local committee, headed by Mrs. E. E. Crouter, collected US \$1,844.25 plus Ch. \$799.58 (enough to give jobs to 300 refugees in China), as well as interesting Chinese in the island in giving large sums to the various projects originated in Baguio.

There are over 100,000 Chinese in the islands, nearly all of whom are extremely patriotic and tend to be democratic and progressive in thought. The important community leaders have supported the Indusco work, and over two-thirds of the money collected in the Philippines has come from the Chinese. On the Executive Committee of the Indusco Association are: Dee C. Chuan, head of the China Banking Corporation, Alfonso Z. Sy Cip, President of the Chinese General Chamber of Commerce, Yu Khe-thai, a leading businessman, and Mrs. Albino Sy Cip, Treasurer of the Philippine Chinese Women's Relief Association.

Overseas Chinese in the South Seas have pledged to send Ch. \$500,000 to the C.I.C. From Java Mrs. Liem Sceng-tee contributed Ch. \$100,001, while the Komite Hoakiauw Penondjang Gerakan Amal de Tiongkok of Batavia gave \$100,000. Smaller contributions come in from Singapore, Indo-China, Siam and elsewhere.

When Jawaharlal Nehru, of the Indian National Congress, was in China he inspected the Indusco work and took a great interest in it. On his return he arranged for the collection of a large number of used tires and wheels to make carts for the C.I.C. and also for a number of small contributions, such as 10 pounds sterling from the Pioneer Magnesite Works of Bombay, etc.

The Burmese have also supported the C.I.C. Miss Daw Mya Sein, in particular, has been instrumental in making collections and has taken a keen interest. She learned of the movement during the tour of China which she made as deputy chief of the Burma Mission which visited China in early 1940. She is editor of the *World Pictorial*, a bi-lingual (English and Burmese) monthly magazine in Rangoon. The Chinese Chamber of Commerce in Rangoon has also contributed.

4. IN ENGLAND, AUSTRALIA AND EUROPE

It was hopefully believed by the founders of the Chinese Industrial Cooperatives that the international cooperative movement would come to the aid of so important and significant an undertaking. Cooperative internationalism, however, does not seem to have come of age as yet, or perhaps it does not realize its own strength. Only from England has any active cooperation appeared on the horizon, and since 1938 and 1939 when such help would

easily have been possible, dark clouds seem to obscure any kind of international movement. A golden opportunity was lost which might have done much to change the nature of society in the Far East.

The International Cooperative Alliance is said to be composed of 193,000 societies in forty countries with over 100,000,000 shareholding members, doing an annual business of over \$20,000,000,000. If each member should give ten cents gold to the sister-movement in China, that would be US \$1,000,000, which at 20 to one would exchange for over Ch. \$20,000,000. That would build about 9,000 industrial cooperatives in China and employ 160,000 workers.

In Great Britain there are 7,484,000 cooperative members with a capital of some \$1,500,000,000 and an annual turnover of over \$1,000,000,000. They are said to do 1/7th of the trade of England. It was to England that the Indusco organizers first turned for support. Alley wrote letters immediately and one of the original Shanghai committee members spent some time there interesting Cooperative leaders and Labor groups in the infant China movement. The result was not discouraging. On June 5, 1939, at an inaugural meeting in the House of Commons, The Anglo-Chinese Cooperative Development Society, Limited,⁸ was "founded in order to provide assistance and mutual trading facilities to the Chinese Industrial Cooperatives," as its announcement stated, which enthusiastically recommended the new movement. The Society numbered four Members of Parliament in its leadership: Alfred Barnes, President, and Sir Stafford Cripps, John Jagger and G. S. Wood as Directors, together with Paul Gosling, Manager of the London Cooperative Society, Ltd. Miss Dorothy Woodman was Secretary, *pro tem*. Joint Advisory Members included the Chinese Government officials, Liu Chieh, C. C. Wang, P. W. Kuo, T. Y. Lee and C. L. Hsia.

The Society decided to sell withdrawable shares to cooperators at one pound sterling each in order to raise a loan of 100,000 pounds sterling. The Chinese Government agreed to guarantee the loan, and it was in the middle of these negotiations that the war broke out in Europe and delayed proceedings, though I understand the plan has not been dropped. The Society also intended to arrange to purchase Indusco-made toys, porcelains, handicraft goods, etc., as part of the Japanese boycott then sponsored by the British Co-operative Movement. Tools and machinery were to be collected

⁸ Offices are at 14 Victoria Street, London, S.W.1.

for shipment, and trade and international cooperation encouraged.

This project is still a practicable measure for British economic and military self-defense in the Far East, not to speak of being an important salient in the fight for democracy; so it is probable that something will still be done in the future. In April, 1940, Sir Stafford Cripps personally investigated the Industrial Cooperatives in China and reported favorably on them. He gave several lectures in Washington and New York recommending assistance and stating that "The Chinese Industrial Cooperatives . . . are teaching the people the methods of democratic government. It is the building of a new democracy on the old foundation." He went so far as to say that he believed that at this moment when democracy is direly threatened in Europe, "a new hope for democracy is springing into vigorous life in China, especially through these cooperatives."

In the meantime, contributions are coming in from England, such as from the China Campaign Committee, from British Relief Funds, and a small sum from the Left Book Club, which put out a special supplement on the C.I.C. in July 1939.

Articles have appeared in cooperative publications, as well as the "New Statesman and Nation," the "Manchester Guardian," etc.

The British businessman usually takes an intelligent interest in the movement as a practical way of helping China's fight for existence which, not incidentally, helps the British position in the Far East. For example, in Shanghai the Chairman of the British Chamber of Commerce, Sir Robert Calder-Marshall, commended Indusco in his annual report before that body on April 13, 1940. *The China Weekly Review* of April 20, 1940, reported: "Speaking on the situation in 'Free' China, Sir Robert referred appreciatively to the work of the Chinese Industrial Cooperatives in the development of the West and Southwest. He saw no reason why 'Free' China should not achieve self-sufficiency through the extension of the industrial cooperative movement. Lack of transportation facilities militated against the fulfillment of larger plans, he pointed out, but the transportation of small plants such as those set up by the cooperatives presented no insuperable difficulty. 'These embryos of large plants', he said, 'must inevitably have a beneficial effect on the economic life of the country, opening up large areas that hitherto have been undeveloped.'"

Individuals in France have taken a good deal of interest but I do not know of any contributions aside from the \$10,000 given to Alley in June, 1938, by the Paris Branch of the International Federation of Trade Unions. At the International Con-

ference for the Defence of Democracy, Peace and Humanity, held in Paris on May 13, 1939, a resolution was adopted "To secure financial aid, raw materials, and necessary equipment for industrial cooperatives, only with which may the Chinese people reconstruct their economic life in the regions devastated by the war."

No C.I.C. promotion committees exist as yet in Canada and New Zealand, though contributions have been sent in from those who have learned of the movement. In January, 1940, the Australia-China Cooperative Movement was organized in Melbourne, Australia, with J. F. Chapple, General Secretary of the Australian Railways Union, as chairman, Miss I. Z. Watt as secretary, and Miss Melan Ket and F. D. Trainor as assistant secretary and treasurer, respectively. Chinese Vice-consul W. Y. Tsao acts as patron. Since that time, Australia has sent about 45 pounds sterling to found a cooperative unit in Kwangtung which it was requested to be called the "Maryborough Cooperative Society." The Hon. Alec D. Grant, Assemblyman of Sydney, was among the first to stir up interest, having learned of it while on a trip to the Philippines.

Several Geneva organizations have followed the movement with interest. In July, 1939, Dorothy M. Arnold wrote a long article for the Peace and Disarmament Committee of the Women's International Organizations, entitled "From the Ashes of Devastation Rises the Phoenix of China's Industrial Cooperatives." In its April issue, the International Christian Press and Information Service published news of "China's Cooperative Movement."

I do not know of any financial support from Scandinavia or other European countries. This lack of international consciousness and failure to support democratic movements elsewhere goes far toward explaining the recent fate of those nations.

5. IN THE UNITED STATES AND HAWAII

One of the great tragedies of the Industrial Cooperative movement in China has been the unavoidable delay in organizing effective support in the United States before the European War and other distractions rendered this difficult. This is the kind of help to China that appeals to the average American, as shown by the number of Americans in China, the Philippines, Hawaii and at home now engaged in rousing sympathy and getting financial support for the work.

A nation-wide popular campaign for funds has not yet been launched at this writing, but plans have been under way for several months. At the end of 1939, Miss Ida Pruitt was sent to the

United States by the International Committee in Hongkong for the purpose of organizing support. Within a few months she personally received over US \$10,000 in spontaneous contributions during her lectures and discussions. Local committees⁴ were formed in Philadelphia, Boston, Washington, New York City and elsewhere.

When Mrs. Franklin D. Roosevelt consented to stand as national sponsor for the movement, the work received great impetus. The national "American Committee for Chinese Industrial Cooperatives"⁵ was formed with 100 members on its Advisory Board and 20 members on its Executive Board. Admiral Harry E. Yarnell is Chairman of the Executive Board; John H. Reisner, Vice-chairman; Mrs. Frederick W. Longfellow, Treasurer; Harry B. Price, Promotion Director; and Miss Ida Pruitt, Representative from China. Other executive members include Miss Frances Curtis, Dr. Claude Forkner, B. A. Garside, Miss Dorothy McConnell, Roy Veatch, Richard J. Walsh, Evans Clark, Sarah Lyon, Mr. Paul V. McNutt. The Advisory Board includes John Earl Baker, William M. Chadbourne, Dr. Alfred Cohn, Mrs. John G. Coolidge, Miss Gertrude Ely, Welthy Honsinger Fisher, Rev. Walter B. Foley, Monseignor Furfie, L. Carrington Goodrich, Roger S. Greene, Mrs. John H. Hammond, John R. Hersey, Richard Hogue, Arthur N. Holcombe, Philip Jaffe, Owen Lattimore, Mrs. Goodhue Livingston, Harry R. Luce, Rufus G. Mather (Winnefred Holt), Homer L. Morris, Mrs. Laurent Oppenheim, Nathaniel Pepper, Mrs. Warren Pierson, Gifford Pinchot, Arthur Upham Pope, Alan Priest, Stephen Raushenbush, Dr. G. Canby Robinson, Mrs. Franklin D. Roosevelt, Miss Daisy Fiske Rogers, Michael Straight, Mrs. George Shattuck, Mrs. Deems Taylor, Bishop Herbert Welch, Ray Lyman Wilbur and others.

In April, 1940, the first large meeting was held in New York sponsored by Admiral Yarnell, John Gunther, Nathaniel Pepper and others. Pearl Buck and Sir Stafford Cripps (now British Ambassador to Moscow) addressed the gathering. Pearl Buck has been much interested in the movement since its early beginnings. In this talk she declared " . . . I believe that the Chinese Cooperatives are the most important source of hope for China today, and that by every means they should be encouraged and helped in their

⁴In Boston Miss Frances Curtis heads the committee at 87 Beacon Street; in Philadelphia, Miss Gertrude Ely, of Bryn Mawr; in Washington, Governor Gifford Pinchot serves as Honorary Chairman and Mrs. Paul V. McNutt as Chairman, with Miss Helen Loomis as Secretary, at 945 Pennsylvania Avenue. The New York office is at 17 William Street, with Mrs. Frederick W. Longfellow as Treasurer.

⁵Address: 8, West 40th Street, New York City.

organization, management and practice."

After the meeting Admiral Harry E. Yarnell, who was Admiral of the U. S. Asiatic Fleet until his retirement in 1939, signed a letter to several hundred prominent citizens appealing for support to the movement. In this he stated: "In a world that is full of destruction, it is encouraging to our belief in the ultimate victory of the forces of construction to know that in China there is a great movement working toward stability and sanity. The Chinese Industrial Cooperatives are making, in small, local units throughout Free China (which is 5/6ths of the country) the everyday things the people need, and giving jobs to refugees and others made destitute by the war."

It is hoped that not only individual contributions will come from America but also Government loans as well as private and bank loans. It is fascinating to speculate that an American investment of \$50,000,000 or so at this time might possibly change the course of history in the Far East. In any case it would be a magnificent experiment in helping to build a sister-democracy while defeating Fascism and aggression at the same time. At the worst, it would keep the Chinese fighting while we get a breathing-spell in order to make up our minds on larger issues. Democracy, like peace, is indivisible. Without international fraternity today, it has not a fair chance anywhere, not even in far away China. Yet there is no place I know of where our idle American dollars will fight so effectively for us as in building industry in China on a democratic basis—before it is too late.

Although the United States has not really mobilized to help this movement as yet, the work has gained the support of an important body of informed opinion on Pacific affairs which cannot be disregarded. A number of articles have appeared in the press and the public is coming to learn of its importance. In the meantime, small contributions are being sent every week, and also several larger ones. Mrs. Ann Archbold and Miss Elizabeth Shaw have each given US \$1,000, for example. The American Advisory Committee for Civilian Relief in China has contributed over Ch. \$150,000, and church and other relief groups are now collecting funds, as I have mentioned in separate chapters.

Hawaii has shown considerable interest in the C.I.C. and contributions come in from time to time. The Bowl of Rice Committee of Maui sent US \$390. The Members of the Community Church of Honolulu sent HK \$300. The United Council of Honolulu Chinese Churches for Civilian Relief in China gave HK \$4,041.91.

XIII. FINANCES

1. GOVERNMENT LOANS AND OUTSIDE CONTRIBUTIONS

The Industrial Cooperatives have been financed by several methods as follows:¹

1. *Government Appropriations:*

Capital Fund	Ch. \$5,000,000
Administrative Fund	1,000,000
Chekiang Relief Fund administered by C.I.C. to date ..	60,000
Shensi Provincial Government Rehabilitation Fund, to be administered by C.I.C. in summer of 1940	5,000,000
	<hr/> Ch. \$11,060,000

2. Amount of paid-up share-capital subscribed by members (Total subscribed is \$569,781. This is small, due to the poverty of the members.) .. 381,388

3. *Special Funds:*

From Madame Chiang Kai-shek for women and children	Ch. \$50,000
From Madame H. H. Kung for the education of C.I.C. children	6,000
International Federation of Trade Unions, Paris Branch	10,000
Subscriptions by Rewi Alley, E. R. Lawpood, Miss M. Russell and friends	25,000

¹ As of July, 1940. All money is in Chinese currency. Foreign committee contributions from abroad are roughly estimated, as exchange varies from day to day. In addition medical supplies, books, etc., have been given. In 1939 the Foreign Auxiliary of the National Red Cross Society of China gave 40,000 5-grain quinine tablets to Chengtu for malaria sufferers. Hongkong, Manila and Baguio have sent boxes of medicines. The Philippine Bureau of Science sent 143 technical textbooks, and the cooperative movement in the United States is collecting books on cooperation and science.

From the American Advisory Committee for Civilian Relief in China	150,000
British Relief Funds	349,000
National Christian Council ..	1,000
Foreign Auxiliary of the Chinese Red Cross	49,000

Ch. \$ 640,000

Contributions from committees, groups and individuals in China, the Philippines, Hawaii, Burma, Java, India, Siam, Singapore, Australia, New Zealand, England and the United States. (Since its formation in July, 1939, these contributions have been handled by the International Committee for C.I.C. Productive Relief Fund in Hongkong on the principle of the revolving Fund.) Approximately ..

Ch. \$1,250,000

Ch. \$1,890,000

Ch. \$ 1,890,000

4. *Bank and Private Loans:*

Bank of China, Hongkong ..	Ch. \$ 200,000
Joint loan from the Bank of China, Farmers' Bank of Chi- na, Central Bank of China and Bank of Communications ..	1 000,000
Bank of China (signed July 1940)*	18,000,000
Provincial Bank of Kwangtung	2,000,000
Provincial Bank of Kansu ..	500,000
Provincial Bank of Shensi ..	500,000
Private bank loans	500,000
Bank of Communications ..	500,000
Madame H. H. Kung, interest- free	100,000
A. G. Fraser England (2,000 pounds sterling not yet ex- changed)	

Ch. \$23,300,000

Grand total Ch. \$36,631,388

* This Bank of China loan was nominally for \$20,000,000, but the agreement covered previous loans to C.I.C. This was designated for large enterprises in safe areas.

5. *Loans Under Negotiation:*^a

Loan from Anglo-Chinese Co-operative Society, Ltd., London	100,000 pound sterling
Four Banks of Szechuan, for agricultural industry ..	amount as yet unspecified

Of the above funds, however, only about Ch.\$7,000,000 had actually been released and put into field production as of May 31, 1940, the distribution of all funds being as follows:

Capital loaned out to individual societies ..	Ch. \$ 5,550,192
Other capital invested in production (approximate)	1,500,000
Paid-up share capital	381,388
Government capital held in reserve	1,000,000
Government capital held as security for bank loans	1,000,000
Special Funds used for social services, education, transportation of skilled workers from the coast, refugee relief etc.	450,000
Administrative expenses	1,000,000
On hand (recent loans not yet in production, reserves, etc.)	25,749,808
	<hr/>
	Ch. \$36,631,388

Of the total amount of \$5,550,192 loaned out to the individual societies, \$645,189 had been repaid as of May 31, 1940, leaving \$4,905,003 outstanding.

Total value of goods produced from September, 1938, to May 1940 with less than \$7,000,000 invested	Ch. \$40,000,000
Monthly production as of May 31, 1940 ..	6,394,958
Monthly production as of July 1940 (estimated)	9,000,000

The Government Capital Fund is loaned out to individual cooperatives at 8% for short-term loans for operating capital to be repaid within the year, and 6% for long-term loans on equipment to be repaid within three to five years (usually three), subject to

^a It has been suggested that the British Government may give a loan to China for the Industrial Cooperative movement, though no definite news on this is available. About three months ago, R. A. Butler, Parliamentary Under-Secretary for Foreign Affairs, in a statement (published in the British press) reaffirming British support to the Chiang Kai-shek Government, gave assurance of further British loans to China and mentioned the Chinese Industrial Cooperatives as one of the definite objects of such financial assistance.

instalment-paying in the meantime. The Revolving Fund handled by the International Committee is loaned out at 5%, except when freely given for social services and other non-profit-making projects. Bank loans vary, but the C.I.C. tries to keep interest rates as low as possible. In the past private capital has demanded huge interest rates in China, and the cooperatives have had some opposition to this bringing down of rates.⁴ In Szechuan, the C.I.C. was obliged to raise its 8% rate to 9.6% per annum, at the request of the Szechuan Cooperative Commission, in order to agree with the interest charges for local agricultural credit societies. Loans from the Bank of China for Szechuan were also raised to 9.6% for both operating and fixed capital. Liability is limited, but the system is based on shares whereby each member assumes responsibility for his portion of the loan and collectively they cover the whole loan. In practice, liability is based on production values and machinery rather than on paid membership shares, which are of necessity very small. Loans range usually from \$500 (less than 14 pounds sterling) for a gold-washing cooperative to \$30,000 (less than 1,000 pounds sterling) for a machine-shop.

An initial administrative Fund of \$500,000 was appropriated by the Government to pay the salaries and office expenses of the staff and the cost of setting up new depots, to be paid out on a monthly budget. During the first eight months, the C.I.C. used only \$120,000 of this to set up and operate five Headquarters and 22 depots. As of February, 1939, this was only \$40,000 a month, hopelessly inadequate to support 500 staff members working in 14 provinces. By the time it was raised to \$80,000 salaries were several months in arrears. In February, 1940, it was raised to \$100,000 though the C.I.C. requested \$120,000 for its 1,000 staff members.

As the Government provides only capital for investment and funds for the administrative personnel, Special Funds are invaluable to the movement. The \$50,000 from Madame Chiang's New Life Movement funds was used to start the women's department. Madame Kung took responsibility for the entire education of the children of C.I.C. workers in Chungking with an initial gift of \$6,000. She also privately contributed a sum of money to purchase machinery from Australia and funds for other purposes.

2. BANK LOANS, FOREIGN LOANS AND PRIVATE INVESTORS

Chinese bankers have been cautious but are becoming increas-

⁴ In July of 1940 an order was given requiring the C.I.C. to pay 8.6% on all short term loans.

ingly interested in the cooperatives as an investment possibility. One of their principal worries during the war has been trying to get foreign support to keep up the national currency value, but intelligent financiers are coming to see that such artificial bolstering cannot last forever and that money must be put into production if it is to have any permanent basis of value. Investment in the decentralized system of cooperative industries can certainly become a strong factor in keeping up the currency, as well as repaying the loan itself at a reasonable rate of interest. Another thing which appeals to bankers is the honesty and efficiency of management in these cooperatives, eliminating waste and delay. The cooperative constitution makes possible modern and honest management, which every member must accept or be expelled from the society. Accounting classes are rapidly improving the book-keeping system, which in any case has been a big improvement over the usual slipshod business methods of the interior. The inter-provincial Indusco system of federation makes it possible to loan money to industry through the Headquarters with a minimum of red tape and supervision. Contrast this system with any attempt to put out thousands of small loans to individual proprietors. Aside from the inevitable squeeze all along the line, the banks would have to send out their own accountants and establish hundreds of branch offices at tremendous expense. Bankers also see the value of such industry in improving general economic and trading conditions in the interior, this in turn enhancing the value of investment in any other field.

The possibility of getting large blocs of capital to invest in the Industrial Cooperative is a most interesting speculation, when one considers the three billion idle in Shanghai, the \$700,000,000 in Hongkong and the US \$90,000,000⁶ of Chinese capital now in the United States. There is a recent tendency for capital to leave the uncertain treaty-ports and seek investment in the interior. The problem is becoming largely one of mere safety rather than profit.

Dr. T. V. Soong, one of China's most brilliant financial minds, always a leader in the economic development of his country, has supported the idea of Industrial Cooperatives from the moment it was first suggested, well seconded by his subordinates. As soon as field work started in 1938 he volunteered an experimental loan, without security, of \$200,000, which was negotiated through Rewi Alley and the Shanghai Committee. This was used in the South-

⁶ According to John Ahlers (*China Weekly Review*, July 27, 1940), it has been estimated that as high as US \$200,000,000 in Chinese capital took flight early in the Sino-Japanese war to Hongkong, Singapore, New York and London.

east Headquarters. The extent of his belief in the business integrity of Indusco is indicated by the fact that he arranged a further long-term loan for the Southeast of \$1,000,000 at 6% from the "Big Four" banks—the Bank of China, the Central Bank of China, the Farmers' Bank and the Bank of Communications. This was handled by the International Committee, of which Dr. Soong is a leading member. Total loans offered to the C.I.C. from the Bank of China, of which Soong is Chairman, amount to over Ch. \$20,000,000, including loans from its branches in Szechuan and other provinces. A private bank has loaned \$200,000 to the Northwest Headquarters. The Provincial Banks of Kwangtung, Shensi and local banks elsewhere have also given loans amounting to over a million.

The small provincial banks of China are extremely wary of risk, and usually in the past charged exorbitant rates of interest for this reason. Yet a few weeks after the Northwest Headquarters was started, Lu Kuang-mien was able to borrow \$20,000 without interest from local bankers. By September, 1939, Lu had succeeded in borrowing \$364,000 from bankers and the loan is being repaid without difficulty. After a trip to the Northwest in January, 1940, Hubert S. Liang wrote that "Bankers are well sold on our Cooperatives." One of the Shensi bankers said to him, "Industrial Cooperatives are the only hopeful and meaningful investment in China."

In Szechuan Mr. Chen Tsu-san, Commissioner of Reconstruction and also a banker, publicly pledged his support to the C.I.C. in a speech made in January, 1939, saying: "We must make the people feel that they are masters and not slaves. It is in this way that we can win our final victory and we can build a new country. Industrial Cooperatives are the most effective means in giving people this sense of ownership of their country."

In 1939 Madame H. H. Kung gave a personal loan of \$100,000 for gold-washing cooperatives in Shensi. By the middle of December, 1939, fifty units producing 60 to 70 ounces a month had been organized along the Han River, using only \$20,000 of the loan, each unit averaging 25 members. The Northwest Headquarters estimated that by spring it would have 250 cooperatives at work, and that by the time the principal was returned about \$2,000,000 worth of gold would have been produced. In the meantime some 50,000 refugees would have been given a livelihood, including dependents of the miners.

The Industrial Cooperatives have hoped for both private and Government loans from abroad, though so far this hope has not

materialized to any extent. Before the European war, however, the Anglo-Chinese Cooperative Development Society, Ltd., formed to assist the C.I.C., planned to sell shares to cooperators in England to raise a loan of 100,000 pounds sterling. The war has complicated this project, but it has not been dropped.

A scheme for debentures is being worked out to facilitate the securing of foreign funds. In the meantime, Dr. T. V. Soong arranged in 1940 that the Bank of China underwrite private foreign loans through the International Committee up to 50,000 pounds sterling. Dr. H. H. Kung has similarly agreed that the Central Bank of China will provide guarantee for a further 50,000 pounds sterling.

Private foreign loans are made through the International Committee in Hongkong as well as Chinese bank loans. This numbers the leading Hongkong Chinese bankers in its membership, representing the three big banks: Dr. T. V. Soong, Chairman of the Board of Directors of the Bank of China; and the Manager of the Bank of China, Mr. S. J. Chen, who serves as Treasurer and Vice-chairman; Mr. P. N. Chung, Manager of the Central Bank of China; and Mr. T. Kai-liang, Manager of the Bank of Canton. (Mr. T. Kai-liang is Treasurer of the Hongkong Promotion Committee and Mr. P. N. Chung is now its Chairman). Mr. J. M. Tan, a partner in Wong, Tan & Co., Chartered Accountants, is also a member of the International Committee and assists with accounts.

In April, 1940, Bishop Hall, Chairman of the International Committee, made a trip to Chungking where he consulted officially with Dr. Kung and K. P. Liu, heads of the C.I.C. Administration, on the subject of foreign loans. The Minutes of the International Committee for May 14 quoted his report: "The Chairman outlined to Dr. Kung the proposal made by the Committee concerning foreign loans, to which Dr. Kung entirely concurred: This proposal included the following points: (1) The International Committee on the strength of the guarantee of the Bank of China, takes responsibility for foreign loans. (2) That we immediately communicate with Chungking telling them that we have done so and get from them a covering guarantee to repay the loan. (3) That Chungking comply with our request for repayment of foreign loans at ten percent per annum to go into a Sinking Fund in the hands of the International Committee and pay interest."

* The Committee deducts 5% from all donations received for its Sinking Fund, unless otherwise specified by the contributor. J. M. Tan serves as Honorary Accountant for Loans and Sinking Funds.

"Dr. Kung also promised to establish in the Central Bank in Hongkong a similar guarantee to that of the Bank of China. Thus the guarantors of the International Committee would be the Bank of China and the Central Bank on a 50/50 basis. With this generous promise made by Dr. Kung, the Chairman felt that it would be easier for the International Committee to accept loans quickly."

The International Committee accepted in 1940 an interesting loan of 2,000 pounds sterling from A. G. Fraser of Newbattle Abbey College, Dalkeith, Midlothian, England. This was part of his life savings and was offered through Rewi Alley without interest for the duration of the war.

Miss Elizabeth Shaw, an American, also offered a loan of US \$1,000, which she later changed to a gift. This money, amounting to Ch. \$13,180.49, is being used in a model refugee village in the Southwest Headquarters.

Future private foreign loans up to 100,000 pounds sterling have recently been guaranteed by the Bank of China and the Central Bank of China, and several million dollars on easy terms could undoubtedly be accepted from such sources backed by these Government banks.

The Chinese Industrial Cooperatives could handle immediately at least US \$50,000,000 in long-term "Productive Relief" loans from foreign governments, on a reasonable basis. Part of these loans could be used to put refugees and unemployed to work in various types of war industry.

In a conversation which the author had with Rewi Alley on August 27, 1940, on the subject of a large United States Government loan, he stated that the C.I.C. could absorb a loan of US \$50,000,000 within two years on the following conditions: provided that the interest rate be not over 3% or so and the loan renewable after twenty-five years, with amortization after five years; that 10% be used for administrative, training and research purposes, which could eventually be paid back into the capital fund; that a very efficient inspection and auditing service be expanded, free of politics; and that a good advisory board, including American engineers, give assistance.

Alley emphasized that the efficiency and soundness of the C.I.C. depended upon utilizing large-scale management for small-scale production units, invulnerable to bombing and close to markets and sources of raw materials, in order to save transportation costs. Each factory is conceived, not as isolated and individual, but as one link in a coordinated chain of production. Maximum effi-

ciency can be attained only by strong local federations under each Headquarters, each cooperating closely with a broad but integrated inter-provincial system of marketing, supply and transportation. In this way costs of production can be lowered and the whole system can operate on a well-planned basis.

Alley feels very strongly that, given initial financial support sufficient to realize a large-scale system of federated industries, the Chinese Industrial Cooperatives can expand and improve production on a more efficient basis than has ever before been attempted in China, and that the stimulation of wartime conditions tends to compensate for the external difficulties imposed. He believes that competently trained labor working enthusiastically in the cooperative spirit goes far to make up for backward technique. At the same time, he points out that it is possible for the C.I.C. to take advantage of modern technique and adapt it to Chinese conditions, with a minimum of waste of capital and the fullest utilization of labor-power. The extent of mechanization and size of an industrial plant depends upon the relative scarcity and cost of labor and capital. Under present conditions, it is more profitable in China to use more labor-power and less capital equipment, not to speak of the importance of building up purchasing power in the market through returning as much in wages to the consumer as possible. He considers the C.I.C. the soundest and safest investment in China for both private and foreign capital.

Alley believes that practically all the limitations of industrialization in China can be overcome by the C.I.C. if only it can realize the possibility of rapid expansion. He points out that under Chinese conditions, the small-scale methods of industry in England, Germany and the United States fifty years ago can still be used efficiently.

"It is nonsense to insist on huge electric furnaces for steel, for example," he declared. "What we need is hundreds of small Bessemer type open-hearth furnaces like England used to have. And we need hundreds of machine-shops. These must be located in every possible corner of China to supply local needs. It costs twice as much to transport a machine across a few provinces as to make or purchase it.

"C.I.C. machine-shops could make nearly every type of machinery required, including machine tools. We have already equipped a machine shop for Oberlin-in-China. Even today our eighteen shops are manufacturing an extraordinary variety of machines, from nine-foot lathes to the expensive English H. F. Set for textiles, which it took us a year to import from England and

put before the West China machine-shop engineers for copying. What we need now is models of all improved modern small-scale machines and processes. Our engineers can copy anything; blue-prints will do if the machine itself can't be got."

Alley says the C.I.C. could still salvage Ch. \$20,000,000 worth of used machinery from the cities, that there are thousands of Chinese engineers and technicians who would move inland from the coast as soon as they learned that salaries and opportunities definitely awaited them. "We should be able to recruit fifty thousand technicians from the treaty-ports in a few months," he commented. He knows many of these by their first-names, so he should be a fair judge in this matter.

"We have never imported a thing so far except five trucks and gasoline and the H. F. textile set," Alley remarked, "but we do need a few machines badly for rapid expansion, such as for carding wool and cotton, making matches and tobacco."

"There are many possibilities which we have not yet touched," he continued. "For example, we could organize labor-contract cooperative societies of hundreds of thousands of men to build a whole new transportation system in China—roads, railways, bridges. Such societies could also do reforestation, build canals, irrigation works and flood-control projects. Cooperative management is infinitely more efficient than impressed and commandeered labor. It is frequently overlooked that nearly all the public works which Mussolini boasts of were built, not by Fascism, but by 6,000 cooperative labor contract societies which represent the strongest anti-Fascist force in Italy today and the greatest threat to the overthrow of the Mussolini regime. Mussolini cannot disband them. If he does, the labor organization is destroyed. It is true that these societies have been the tool of the Fascists in one way, but it is equally true that they will become the instrument of the people in fighting their own battle.

"The C.I.C. could improve the quality, and lower the cost of production a good deal also by starting its own scientific farms for raising long-staple cotton, good wool, sweet potatoes for alcohol, good draft animals for transport, etc. We can make the necessary improved farm tools and machinery to mechanize agriculture, and also the fertilizer and other needs.

"Given the initial financial support, we could eventually absorb every idle person in China and do away once and for all with banditry, refugees and civil war. Poor people will flock by the hundreds of thousands to join the work as soon as places can be provided for them—but they have no capital of their own. They

must be helped temporarily in order to help themselves permanently.

"Once the C.I.C. has developed its mass production system, the problem of Chinese currency will be solved, for one thing, and high costs will be reduced. A large foreign loan for C.I.C. production would automatically begin this process of stabilization immediately, whereas no amount of artificial bolstering of the currency can be more than a temporary and expensive expedient.

"The tragic thing about China today is the unnecessary waste—the waste of idle labor-power, the waste of idle resources, the waste of idle capital, the waste of idle technicians and college and middle school graduates who have no productive work to do, the waste of time and money in transportation, the waste of time and money in building big expensive plants so easily destroyed when small ones can do the same work."

As immediate needs of the C.I.C. Alley listed the following, all the necessary plant for which either already exists and can be restored to production, or can be manufactured in China.

1.	The purchase of two available idle cotton mills, to be reorganized as small units for protection against bombing, and operated under the Northwest Headquarters to supply cotton yarn	Ch. \$ 10,000,000
2.	To evacuate and purchase semi-destroyed big industry in Chungking and reorganize as small cooperative units	10,000,000
3.	To spread front-line war areas work from Liuho, Suiyuan, across Shensi, Honan, Hupeh and southward	30,000,000
4.	To develop industrial cooperatives along the road to Turkistan and through Chinghai (Kokonor)	5,000,000
5.	To develop Yunan Province, with Tali-Lashio-Yunan-Sichong-Yaoan as a base	5,000,000
6.	To build up a transportation system, purchase and convert trucks to charcoal and alcohol engines	5,000,000
7.	To build 1,000 small alcohol plants, costing about Ch. \$10,000 each	10,000,000
8.	To make machinery for spinning units, including capitalization of one large machineshop ..	10,000,000
9.	To develop small iron mines and steel works	10,000,000
10.	To establish cooperative treasuries for each Marketing and Supply center	15,000,000
11.	To use a percentage of the loan for administration (salaries of engineers, technicians and organizers	
		<hr/> Ch. \$110,000,000

One of the worst difficulties is securing funds for the salaries of technicians and staff, which must be greatly increased in order to expand the movement, and for training and educational work. C. F. Wu, chief engineer of the Northwest Headquarters, has stated, however, that this headquarters could absorb an additional Ch.\$10,000,000 without much increase in staff and that this amount would make the Northwest region self-supporting within two years. This statement was agreed to by J. B. Tayler and Lewis Smythe.

3. WHAT MONEY CAN DO: A FEW STATISTICS

During the first 21 months the total production of the C.I.C. chain of industries was estimated at \$40,000,000, or an average of about \$1,800,000 a month. At the end of that time capital in production was about \$7,000,000 and monthly production \$7,000,000. Let us look into some of the figures on growth.

	January 1939	March 1939	December 1939	May 31 1940	July, 1940 <i>Estimated</i>
Loan Capital invested ..	\$300,000	\$1,600,000	\$2,607,302	\$5,550,192	
Other capital invested (estimated) ..				1,500,000	
Paid-up share capital ..				381,388	
Monthly production ..		1,500,000	3,000,000	6,394,958	9,000,000
Registered Societies ⁷ ..	170	258	1,284	1,688	2,000
Memberships ..		?	15,625	22,740	35,000
Extra workers and apprentices (est.) ..		?	15,000	30,000	
Women spinners (est.) ..				30,000	
Technical staff ..		500	?	1,000	
Monthly staff allowance ..		40,000	80,000	100,000	
Total number of persons dependent on C.I.C. industry for a livelihood ..					250,000

About \$1,890,000 in Special Funds was received from contri-

⁷ There are always more societies organized than registered with the Central Headquarters, as this takes time and communications are extremely difficult.

butors in China and abroad, of which some \$450,000 were used for social services, etc. The majority of Special Funds are included in the total capital for May, 1940. By March, 1939, for example, only \$200,347 in Special Funds had been used in field work.

Ordinary hired workers are about one-third of the total number of workers in the societies, while piece-workers and extra home workers, mostly women spinners, bring the total extra-cooperative workers employed up to about double the registered membership. This extra-employment has been necessary due to the emergency war orders, capital having been insufficient in the past to establish them in regular cooperatives. The C.I.C. hopes to absorb most of these extra workers as regular members, except such home-workers as are merely on a basis of organized home-industry. The term "industrial cooperatives" actually includes three different types of cooperative in China: (a) the "self-governing workshop" proper, as it is called in England, (b) "organized home industry", in which thousands of spinners and weavers work at home under the management of the C.I.C., and (c) the "labor-contract society", which has not been tried as yet by the C.I.C. on any scale.

By the end of 1939 the C.I.C. was engaged in 50 different types of industry in 16 provinces. At the Exhibition held in Chungking in July, 1940, during the C.I.C. Conference, 114 different types of product were exhibited. Showing the distribution of industry in the early stages, a Chungking report in March, 1939, stated that of the 258 registered cooperatives, 117 were engaged in textiles; 16 in hardware and machinery; 14 in printing and stationery; 14 in foodstuffs; 10 in soap and candles; 9 in leather tanning; 9 in sanitary goods; 8 in building; 5 in mining; 4 in fuel; 3 in glass and pottery; 23 in miscellaneous and 12 in unclassified types of industry.

By the spring of 1940, the distribution of industries among 1,534 cooperative factories was as follows:

Textiles	610
Engineering	49
Mining	118
Chemical	206
Pottery	669
Foodstuffs	83
Transport	4
Miscellaneous	391

Total 1,534

About half the cooperatives in some headquarters are now

engaged in textiles. It was estimated that in January, 1940, there were the following weaving cooperatives in relation to the total:

				<i>Weaving Societies</i>	<i>Total Societies</i>
Northwest Headquarters	..	..	167		370
Southeast Headquarters	..	..	22		298
Szechuen-Sikong Headquarters	..	..	286		490
Southwest Headquarters	..	..	85		167
				<u>560</u>	<u>1323</u>

Social services are being rapidly expanded. In May, 1940, the following had been done:

			<i>North- west</i>	<i>South- west</i>	<i>South- east</i>	<i>Szechu- en-Sikong</i>	<i>Yün- nan</i>	<i>Total</i>
Nurseries	..	..	2	3	3	1	none	9
Clinics	..	..	2	none	1	1	"	4
Hospitals	..	..	2	"	none	none	"	2
Recreation halls	..	..	6	1	"	1	"	8
Training schools for organizers and ac- countants	..	..	1	1	1	1	"	4
Apprentice schools	..	..	2	1	none	none	"	3
Primary schools	..	..	6	1	2	"	"	9
Industrial training classes for women refugees	..	..	2	2	2	1	"	7

Literacy schools, day and night, exist in nearly all the 38 depots. About 50 classes in cooperative management are held regularly as required for new members.

It is much easier to get an accurate picture of actual field work from the individual reports of each headquarters. In May, 1940, this was reported as follows:

<i>Headquarters</i>	<i>Number of Co-ops</i>	<i>Number of Depots</i>	<i>Capital Used</i>	<i>Monthly Production</i>
Northwest	625	15	\$2,581,433	\$4,135,290
Szechuan-Sikong	390	11	1,825,022	929,947
Yunnan	86	4	166,776	79,678
Southwest	187	9	476,884	250,043
Southeast	400	19	100,077	(\$1,000,000)
Total ..	1,688	58	5,550,192	6,394,958

* These figures are conservative. Monthly production in May was estimated to be at least \$7,000,000. The above figure for Szechuan-Sikong, for example, was based on a

LOANS, SHARE CAPITAL, MEMBERSHIP

<i>Headquarters</i>	<i>Number of co-ops</i>	<i>Number of members</i>	<i>Amount of subscribed share capital</i>	<i>Amount of paid up capital</i>
Northwest	625	9,300	247,737	153,171
Szechuan-Sikong	390	4,734	192,953	126,430
Yünnan	86	901	33,525	25,771
Southwest	178	2,205	35,566	24,016
Southeast	400	5,600	60,000	52,000
Total	1,688	22,740	569,781	381,388

LOANS, SHARE CAPITAL, MEMBERSHIP

<i>Headquarters</i>	<i>Amount of loan outstanding</i>	<i>Amount of loan re-paid</i>	<i>Value of goods produced</i>
Northwest	\$2,372,930	\$208,503	\$4,135,290
Szechuan-Sikong	1,497,361	327,661	929,947
Yünnan	144,350	22,426	79,678
Southwest	439,834	37,050	250,043
Southeast	450,528	49,549	1,000,000
Total	4,905,003	645,189	6,394,958

Ninety percent of the societies are considered stable so long as raw materials are available. Alley states that less than 2% had failed up to July, 1940. When a cooperative seems likely to fail, it is either reorganized with stronger personnel or else amalgamated with another cooperative. Such cases have nearly always been due to inefficient management. During the first seven months, there was not a single failure in the Northwest Headquarters, for example.

Costs of individual projects and initial operations are interesting:

Miss Maud Russell, a Y.W.C.A. secretary, gave US \$50 on September 7, 1938 which bought 17 Chinese-made knitting machines in Hankow. Altogether Miss Russell's personal contributions have probably set up about 100 refugee women in cooperatives. Within four months the Paochi depot in the Northwest had set up 61 cooperatives (including a machine shop) with 740 members on a loan capital of \$380,000. Monthly production was over \$500,000.

yearly average. The figure for the Northwest was for the month of April, and production rose rapidly afterward. An unchecked figure for May was given by the Northwest Headquarters Director as \$6,564,024. Accepting this as correct, total production as of May would be \$8,823,692 per month.

At the end of the first year the Northwest Headquarters had produced \$5,100,000 worth of goods on a capital of \$1,200,000.

The first 148 societies in the Southeast were set up for \$400,000 with over 2,000 members. The first 18 cooperatives were started with \$3,789.

In Kiangsi eight cooperatives with 85 members were started with \$13,100, including printing, blacksmith, tailoring and carpentry societies. At the same time 350 members were formed into 14 cooperatives to wash gold on a capital of \$1,000. They expected to produce \$8,000 a month.

In the Southwest, the first 165 cooperatives, with 1,904 members, were set up on a loan grant of \$362,152 and share capital of \$16,397. These industries included the machine-shop, metal work, textiles, paper, printing, medical supplies, furniture, leather-goods, foodstuffs, etc.

As an example of the work of individual cooperatives,⁹ let us take the Paochi Christian Canvas-makers' Cooperatives in the Northwest: These 22 men and four women, destitute refugees from Honan, borrowed a small sum from the C.I.C., bought half a bale of cotton, and started work in a cave in October, 1938. Some of them returned to Chengchow to rescue their machinery. Fourteen months later they held a celebration to distribute a net profit of \$13,508.29. Each man was handsomely dressed in a foreign-style double-breasted winter overcoat, and all were happy and healthy and proud.

The machine-shop is the base of C.I.C. industry. Here is a report from Ralph Lapwood on the one in Chengtu, Szechuan, dated June 1, 1940:

This machine-shop¹⁰ has 5 lathes and 2 under construction, 2 drilling machines, and one planing machine. Originally there were 18 members, now 15, in addition to 18 hired workers, 22 apprentices and 15 coolies.

Work was begun in March, 1939, with a loan capital of \$15,000 long-term and \$40,000 short-term. (The original short-term loan of \$20,000 has been returned with interest paid to the end of 1939).

Share capital is \$4,373, all paid up.

Wages run as follows:

⁹ See Appendix for individual balance sheets. These have been prepared by E. Ralph Lapwood, who is now collecting and analyzing figures for the C.I.C.

¹⁰ This shop was producing daily 50 to 100 foot-treadle spinning-wheels in the spring of 1939, at a cost of \$6.00 each. The same wheel manufactured in private industry cost \$10.

Officers: \$90, \$90, \$75, \$63, \$60, \$35.

Member workers (paid by piece work and much overtime): \$71, \$101, \$47, \$95, \$90, \$99, \$63, \$42, \$45.

Hired men: \$56, \$61, \$40, \$35, \$31, \$36, \$29, \$51, \$38, \$38, \$33, \$33, \$10, \$17, \$17 (these last three worked short time).

Apprentices: \$17, \$17, \$17, \$13, \$15, \$17, \$19, \$15, \$14, \$14, \$20, \$16, \$17, \$20, \$14, \$16, \$15, \$14, \$16, \$39, \$47, (piece work hours are estimated by the job, so that a fast worker who finishes before the estimated time gets paid for more time than he has actually done. Thus the highest-paid apprentice worked so fast that he counted as having done over 800 hours' work in the month).

Coolies: 3 x \$26, 7 x \$25, 2 x \$24, \$21, \$20, \$14, \$13.

For those who wish, food is provided and \$13.50 per month deducted from their wages.

Apprentices are Primary or Junior Middle School graduates. They have half an hour's instruction in machine drawing each morning. The whole factory attends class in Cooperative Principles once a week for 3 hours.

Games—such as basketball—are being prepared for the apprentices.

A typical cooperative center in a small town 170 kilometers from Chungking is described by Lapwood in his report on this depot dated June 1, 1940. Headed by Chang Kuan-lien, who formerly worked in the Ting Hsien Experiment in Hopei, this depot was organized on March 25, 1939 and by the end of April had 27 cooperatives, financed with \$20,000.

On December 31, 1939, there were the following:

	<i>Ramie</i>	<i>Cotton</i>	<i>Sewing</i>	<i>Printing</i>	<i>Misc.</i>	<i>Total</i>
No. of Societies ..	29	17	3	1	4	55
No. of Members (Men)	268	160	29	16	56	529
No. of Members (women) ..	26	82	..	..	..	108
No. of Apprentices	30	35	4	3	..	72
No. of Hired Workers	80	33	22	5	8	128
Share cap. subscribed	\$2,648	\$6,100	\$492	\$400	\$868	\$10,508
Loan C.I.C.	4,911	8,886	..	2,342	500	16,639
Loan Bank of China	27,405	37,158	7,720	..	10,208	82,491
No. of Machines ..	192	214*	17	3	7	..
Monthly Production	14,736	29,039	594	2,294	1,383	48,046

*Includes 83 wooden looms, 47 iron looms, 46 can-spinners, etc.

	<i>Ramie</i>	<i>Cotton</i>	<i>Sewing</i>	<i>Printing</i>	<i>Misc.</i>	<i>Total</i>
Total Production to date	66,863	153,039	3,616	9,882	3,090	236,491
Profit (No. of Societies)†	11	9	..	1	1	22
(amount, total)	1,654	5,703	..	2,338	361	10,056
Loss (No. of Societies)	9	4	3	..	3	19
Total Amount	1,385	688	768	..	1,456‡	4,297

During 1940 effort has been used to strengthen the societies that have already been started, and no new societies have been begun. But the value of production has steadily increased as shown in the following table:

PRODUCTION 1940, FIRST 4 MONTHS

<i>Product</i>	<i>Ramie</i>	<i>Cotton</i>	<i>Sewing</i>	<i>Printing</i>	<i>Misc.</i>	<i>Total</i>
January	\$19,426	\$33,559	\$655	?	\$809	\$54,449
February	13,772	22,586	643	?	606	37,707
March	34,802	64,863	773	?	2,158	102,596
April	37,022	63,970	1,011	2,623	1,656	106,281

A survey made for registration with the *hsien* government at the end of April gave the following figures for the condition of the societies:

<i>Product</i>	<i>Ramie</i>	<i>Cotton</i>	<i>Sewing</i>	<i>Printing</i>	<i>Misc.</i>	<i>Total</i>
No. of Societies	27*	17†	3	1	4	52
No. of Members ..	270	217	27	16	47	577
Share cap. Subscribed	\$2,492	\$6,435	\$492	\$400	\$1,124	\$10,943
C.I.C. Loan:						
Long	595	1,901	..	..	..	2,496
Short	966	1,450	..	..	..	2,916
Bank of China:						
Long .. ..	..	3,597	..	2,616	1,421	7,634
Short	28,927	63,302	7,720	3,499	8,787	112,235

Two of the individual cooperatives described are the following:

†Figures for 3 societies not known, 6 societies have not yet begun work.

‡Includes large porcelain factory whose goods were not yet ready to market.

*Books kept in old style and not yet made up in new style.

*Five societies have yet no loan.

†Two societies no loan.

Sha Pa Tse Ramie Weaving Co-operative: 15 looms all in action, weaving cloth of good quality, 7 members, 6 hired men, and 5 apprentices. Share capital subscribed but not paid up \$70. Loan \$1,140 from Bank of China. Average wage \$9 plus food with a maximum of \$13. Last year a profit of \$190 was made. Of this \$100 was put into the business as fluid capital, and \$90 divided approximately 11, 11, 11, 11, 16, 16, 16: the higher amount going to members who had taken most responsibility.

The cost of living has become so high that this cooperative pays a hired worker to tend vegetables and a pig, and these items appear quaintly on the balance sheet.

The chairman of this cooperative was originally the *lao pan* of the factory. He is comparatively enlightened and is now working in the Cooperative federation, and the management has passed into the hands of a worker who at first refused to become a member, but now is converted from his suspicions and takes responsibility as a leader.

A primary school adjoins this society, and takes responsibility for a two-month course of night-school—2 hours daily.

Production during 7 months of 1939 amounted to \$4,260 and during 1940 has run as follows:

1940	January	\$ 857
	February	755
	March	1,911
	April	1,905

Balance Sheet: April 30, 1940:

Cash in hand ..	\$ 83	
Goods in process ..	88	
Raw Material Inventory	713	
Vegetable and Pigs	127	
Bank balance	7	
Wages prepaid ..	53	
Share in feeding ..	7	
Machinery	291	
Dep. on building ..	200	
Loan		\$1,144
Interest payable ..		40
Wages payable ..		72
Previous Net With		230
Profit		83
	<hr/>	<hr/>
	1,569	1,569

Profit and Loss: April, 1940:

Sales			\$1,935
Inv. Apr. 1	\$ 506		
Purch.	1,575	\$2,081	
	<hr/>		
Stock Apr. 30		713	
		<hr/>	
Cost of material		\$1,368	
Wages		126	
Man		224	
		<hr/>	
Unsold Apr. 1		\$1,727	
		167	
		<hr/>	
Unsold Apr. 30		1,894	
		88	
		<hr/>	
			1,806
			<hr/>
Gross profit			129
Sales			46
			<hr/>
Net profit			\$83
			<hr/>

Shang Ho Tang Gauze Co-operative: is established in a beautiful old house built in the first place by the owner of a pawnshop, who has retired to the safety (from air raids) of the country. It owns 14-7-7 machines and 6 looms on which gauze is woven. There are 26 women members, 2 hired workers, and 4 apprentices. Share-capital is \$314 of which \$79 has been paid up. Loan is \$6,000. Wages last year averaged \$7 or \$8 above the cost of food, but now the members only make enough for their keep. At present there are less than 20 members at work. The cooperative can carry on without loss under decreased production by sending members home temporarily. An order for 2,000 lbs. of bandage for the Army Medical Service has just been completed.

Production during 1940:

January	\$1,494
February	1,530
March	1,980
April	1,882

The chairman is an ex-school teacher and uses very good democratic methods, and emphasises educational work. Every night there have been classes for 2 hrs.

FINANCES

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Balance Sheet: Apr. 30, 1940

Profit and Loss: Apr. 1940

Cash on hand	..	50
Raw Mat.	..	319
In process	..	9,354
Bank bal.	..	50
Dep. on bldng.	..	400
Wages prepd.	..	74
Machines	..	687
Furniture	..	88
Finished goods	..	1,075
Deficit	..	167

Sales	249	
Cost of sales	194	
		<u>\$54</u>
Other income		9
		<u>63</u>
Rent	106	
Purchase ex.	17	
Interest	234	
		<u>357</u>

Accts payable	\$1,281
Mat. from military	3,200
Mat. from Fedn.	1,175
Wages payable	95
Interest payable	330
Bank loan	6,000
Share capital	79
Rent payable	106
	<u>12,265</u>
	12,265

XIV. FUTURE HORIZONS

1. INDUSTRIAL SHANGHAI v. INTERIOR CHINA

During the disruption of 1937 and early 1938 Chinese industry was practically at a standstill. Shanghai began a quick recovery, however, followed by the rapid growth of the Industrial Cooperatives and a slow attempt at private and Government industry, in the interior. Today there is a dramatic industrial race between Free China and the coast, Shanghai representing the coast in this struggle between new and old tendencies.

In Shanghai today, there are about 2,500 factories operating, nearly all in the foreign-protected International Settlement area. Opposed to these are not more than 500 modern factories and industrial plants in all Free China, aside from the nearly 2,000 Industrial Cooperatives. In March, 1940, three billion Chinese dollars were idle in Shanghai, while in Free China not more than a few hundred million is invested in industry, aside from Government munitions plants, and only comparatively small amounts of banking capital are migrating inland.

The struggle between industrial Shanghai and Free China is not only one for control of capital and skilled labor. It is a struggle for the healthy economic regeneration of a whole nation against the continued pathological concentration of wealth and industry, which has been colonially dependent upon foreign protection in Shanghai.

The war has created a golden opportunity for China to industrialize the interior in an even, normal development. It has made Shanghai a "boom town" also, but one based upon every kind of uncertainty. If Japan takes over the Settlement, there will be no future for native Chinese industry there. The long-range future of all foreign trade lies in the development of mass purchasing power through the industrial development of the interior. If the closing of the Indo-China and Burma roads is followed by the Japanese occupation of the Shanghai International Settlement and Hongkong, the result may very likely be to release the productive powers of Free China like an explosion. The Chinese will then have their backs to the wall—and that is when they can fight best, both economically and militarily. A complete capitulation

is impossible, simply due to the fact that the Chinese must fight to keep alive.

Shanghai is a fantastic city. It is today the most strategic center in the world for an industrial invasion of foreign markets by Japanese interests. Fortunately for other competitors, both the European war and Chinese resistance make it impossible for Japan to take advantage of this, due to the difficulty of getting raw materials and shipping facilities. If Japan should have a few years of "peace" immediately, much of the world market will go to her by default with or without Hitler's permission. For instance, nothing but the complete military occupation of South America by a United States army and naval blockade could keep out such cheap slave-labor goods—always welcomed by the poverty-stricken people of all backward lands. An army of two million Shanghai factory workers is worth two thousand Imperial regiments for the future of the Japanese Empire.

Seventy percent of China's modern industry was concentrated in Shanghai and Wusih (industrially a suburb of Shanghai) in 1937. According to the Ministry of Economics, there were then 5,525 large factories and 16,851 classified as "workshops" in Shanghai, with over 600,000 workers. China's key industry is cotton textiles. Let us look into this at present:

In 1937 there were 140 cotton mills in China with nearly 5,500,000 spindles, 88 being Chinese-owned with a capital of about \$145,000,000, and 5 British-owned, capitalized at \$25,000,000. The Japanese owned 49 mills, with a capital of \$400,000,000, 32 being in Shanghai of which only 24 had resumed operations by 1939. The Japanese lost 700,000 spindles during hostilities, including 2 Shanghai mills and 9 in Tsingtao. Japanese spindlage destroyed at Shanghai was 228,000 and 4,000 looms. In central China, 500,000 Chinese spindles and 3,000 looms were destroyed and another 610,000 spindles and 5,300 looms partly damaged. In Shanghai the Japanese expropriated about 275,000 spindles during 1937-38, and in 1939 planned to install 900,000 spindles in Shanghai.

As of April 1939, the ownership and location of cotton mills in China was approximately as follows:¹

¹ These figures are mostly taken from various reports in the *China Weekly Review*, issues of February 22, 1939, June 3, 1939; June 29, 1940.

	<i>Mills</i>	<i>Spindles</i>	<i>Doublers</i>	<i>Looms</i>
Chinese cotton mills taken over by the Japanese	47	1,498,098	107,618	16,366
Japanese-owned mills operating in Shanghai	24	1,114,318	?	290,824 looms and 14,554 weaving machines
Sino-Japanese mills (nominally operated by Chinese with 31% profit to the Japanese)	5	42,328	7,980	1,500
*Chinese mills continuously operated in Shanghai International Settlement (6) and interior cities ..	15	437,562	34,898	2,610
New Chinese mills opened in Shanghai Settlement since hostilities	10	126,100		578
Chinese mills which have removed part or all of their machinery to the Shanghai Settlement or to interior cities	11	315,162	5,600	2,293
Chinese mills now idle in Japanese-occupied territory, including Shanghai suburbs ..	9	260,204	1,568	8,400
*British-registered mills in Shanghai ..	5	278,350		3,265 weaving machines
	126	4,072,120	157,664	340,390

As of April, 1939, only the following were in operation, though since then the Japanese have opened several more and the Chinese a few:

* In June, 1939, the Chinese were operating only eight of the 31 Chinese-owned mills in Shanghai before the war, two of the eight being British-registered. These 344,618 spindles and 1,700 looms are only 25% of the pre-war Chinese spindlage of 1,237, 068 and 9,209 looms. Altogether there were only 18 Chinese mills in Shanghai. The ten new ones were equipped with reconditioned machines moved into the Settlement.

	No.	Spindles	Doublers	Looms
Seized mills operating under the Japanese	26	681,960	42,952	6,244
Japanese mills in Shanghai	24	1,114,316		290,824 looms & 14,554 weaving machines
Sino-Japanese operated mills	5	42,382	7,980	1,500
Mills operating under the Chinese in Shanghai and the interior	36	828,824	41,076	4,903
British-registered mills in Shanghai	5	278,350		3,265 weaving machines
	96	2,945,832	92,008	321,290

All of these 126 mills are situated in Japanese-occupied territory or the Shanghai International Settlement, except perhaps about 15 in the interior. At least 85% of the spindlage in operation was in the Shanghai-Wusih area.

Though the Japanese were operating only 26 of the 47 seized mills, aside from the Sino-Japanese concerns, sixteen others were being repaired (539,308 spindles and 8,007 looms), while five around Shanghai were being used as hospitals and military headquarters. Sino-Japanese cooperation has not been very successful. Three of these five mills were in Shanghai, one in Wuhu (Anhui) and one in Tangshan (Hopei).

Cotton manufacture dominates the economic life of Shanghai and accounts for over a third of local *foreign trade*. It absorbs over half the power sold by the Shanghai Power Company and employs 100,000 factory workers. John Ahlers says it supports 1/5th of the total population, including dependents and all employees. "It accounts for 2,600,000 of China's 4,800,000 cotton spindles. Shanghai cotton spindles equal 35 percent of the number now active in Japan, and equals 10 percent of all the cotton spindles in the United States. As a cotton manufacturing urban center, Shanghai ranks third in the world, surpassed only by Lancashire and Osaka. . . . Shanghai is becoming a dangerous rival to Osaka in the patterning of new cheap prints. Shanghai-made cotton socks and stockings find the favor of an increasing foreign clientele

* Some of these mills, moved to the Sian region, were bombed or unable to function, such as Ta Hua, which resumed operations after bombing only on a limited scale.

which has recently extended even to the United States. . ."

This boom is brought about by the depreciation of the Chinese dollar which made export easy and cheapened Shanghai labor, always the lowest-paid in the world. (Cotton mill workers earn less than one American cent per hour, and work 70 hours a week, without holidays.)

The tragedy of Shanghai industry is that it does nothing to improve the economy of the interior. Shanghai is actually a foreign city. Only 20% to 25% of the raw cotton in 1940 was supplied by Chinese farmers, and this came from Japanese territory. During the first five months of 1940 Shanghai imported US \$24,000,000⁴ worth of cotton (101,428 tons) from the United States, India, Egypt and Africa.

During January-May, 1940, Shanghai *exports* of cotton yarn and piece goods averaged US \$2,000,000 monthly, one-third being yarn and two-thirds piece goods. Half the piece goods and 65% of the yarn was marketed in the Asiatic parts of the British Empire. British India, the Netherlands East Indies, Siam and the Philippines are the best customers outside the British Empire.

Shanghai accounted for over half of all the foreign commerce of China, and only 1/5th of the city's trade was produced from, and goods sent to, the interior. Of China's total imports in 1939 valued at Gold Customs Units 539,000,000 (as compared with GU 386,000,000 for 1938), the Japanese Empire supplied 34%—in spite of the great quantities of raw cotton brought from elsewhere and the competitive textile boom in Shanghai. The United States supplied 16%. In 1939 raw cotton was imported from abroad to the value of GU 69,700,000, whereas in 1938, also a year of heavy imports, the figure was 5,500,000.

The abnormal and unhealthy condition in this fantastic city of Shanghai can hardly be described. The price level rose to more than four times the pre-war figure, and the real wages of labor dropped over half. Rice riots and strikes resulted, while industry was reaping huge profits. Due to the uncertain status of the city, investment is largely speculative—it seeks inordinate short-term profits hoping to withdraw when danger threatens. In 1938, for example, one of the Chinese Sung Sing cotton mills in Shanghai *made a profit* of \$9,000,000, unprecedented in history. Ewo, the big British cotton mill, made a profit of \$8,000,000, while all the cotton mills in the Settlement made profits of over a million. Since

⁴ When one figures exchange for US currency at fifteen to twenty to one, one can see the volume of this industrial output, in relation to Chinese currency.

the beginning of 1938 net profit on a bale of yarn manufactured has been from \$50 to \$150—this in spite of the low exchange of Chinese currency for purchase of raw cotton abroad.

How does this compare with the situation in Free China? According to the above tables, about nine Chinese mills have been in continuous operation outside of Shanghai, presumably in Free China, and about six moved their machinery to Free China. These tables may not be quite complete, as the Ministry of Economics reported that 80 weaving and spinning units were transported inland, though probably most of these were small factories not counted among the big mills, and some are for silk, ramie, etc.

No separate figures on textile factories were available when these figures were given out.

As compared with 100 big cotton mills in Shanghai and Japanese-occupied territory, 71 being in the hands of the Japanese, Free China has probably about a dozen big mills operating and three times as many smaller factories, aside from the Industrial Cooperatives who have about 600 wool and cotton weaving societies, and employ in addition about 35,000 men and women spinners and weavers, with over 50,000 spindles and looms. In addition domestic industry is being revived.

The industry of Free China is protected, however, by the fact that cotton goods from Shanghai cost three, four and five times as much in Chungking, due to high transportation costs.

Most of the cotton industry of Free China centres in Szechuan. By May, 1940, four modern spinning mills near Chungking were operating 300,000 spindles. Other mills are located in Kunming, Kweichow, Hunan, and Kwangsi, but in Shensi all but two or three of the larger mills have been unable to operate due to bombing, lack of power, coal and transportation.

The Industrial Cooperatives were the first organization to create the movement for *new industry* in the interior, beginning in the fall of 1938. Their immediate success had the effect of encouraging timid banking capital to migrate inland and of stimulating private and Government industry, which was very slow in getting started. Most of the latter consisted of old factories moved from Hankow and other occupied cities.

The Ministry of Economic Affairs reported in April, 1939, that 354 factories had been moved to the interior (of which over 300 were privately-owned) as follows:

Nature of Factory	Present Site						Tonnage
	Sze- chuan	Hu- nan	Kwa- ngsi	Shen- si	Else- where	To- tal	
Iron and steel ..	1					1	1,151.9
Mechanical	55	64	11	3	7	140	10,656.3
Electrical supplies ..	10	7	3		1	21	3,097.6
Chemical	29	8	2	3	4	46	7,528.4
Weaving and spinning	14	48	2	15	1	80	29,896.8
Foodstuffs	8	3		3	4	18	3,004.6
Educational supplies	24	1	3		1	29	1,464.8
Others	14	4	1			19	6,225.7
	155	135	22	24	18	354	65,000.0

By April, 1939, 170 of the above had resumed operations, 80 of which were in Szechuan Province. By October, 1939, 234 were operating.

The Ministry of Economics loaned \$4,500,000 to private factories for removal costs, and another \$3,500,000 to purchase a year's supply of raw materials.

The total amount of private and Government machinery moved to the interior was 130,000 tons, of which 65,000 tons were Government arsenals, airplane assembly plants, etc. As of January, 1940, over half of this 130,000 tons were reported set up and in operation.

The Government is actively subsidizing industry. For example it has loaned \$6,000,000 to such industrial establishments as zinc plants in Hunan; a power plant and cement works in Chungking and a paper factory in central Szechuan; a sugar refinery and alcohol plant in Kwangsi.

The Ministry of Economics is trying to develop heavy industry and mining, with considerable difficulty. Total steel production in Free China is 50 to 60 tons daily, and total annual output of pig iron is 50,000 tons; both can be greatly increased. Among the larger concerns is an oil-cracking plant near Chungking producing 420 gallons of gasoline daily, 1,000 gallons of lubricating oil monthly, and 4,000 pounds of marine engine oil and grease monthly. It also puts out ten tons of Diesel oil monthly. New factories started recently near Kunming are: a machine-tool plant, a copper refinery and a cotton mill. The Central Machine Works in Yunnan is making boilers, gas engines, turbo-generator sets, gas producers, etc. Four electrical equipment factories have been established in Kwangsi and Yunnan, as well as the Central Radio Manufacturing Works. Several small machinery and repair shops

and chemical plants have recently been opened in other provinces, as well as a copper refinery in Szechuan.

In Kweichow are seven large factories, as well as a machine-shop, chemical works, several cotton mills, paper and lumber mills, and plants making matches, pottery, cement, sugar and leather.

Coal production in Szechuan increased from 1,000,000 tons in 1938 to 1,600,000 in 1939, and new iron, zinc, copper, coal and other mines are being developed. The National Resources Commission operates 13 coal mines in conjunction with private interests.

No survey has yet been made of the total number of factories and amount of capital invested in Free China, but this is estimated at not over 500 factories and \$200,000,000, excluding the Industrial Cooperatives and Government munitions plants. For example the National Resources Commission reported in April, 1939, that it had invested in key industries in the interior \$40,000,000 since 1936, of which \$19,558,000 was in 13 industrial enterprises, \$11,475,000 was in 21 mining enterprises, and \$4,608,000 in eleven electrical utilities. Government subsidy and enterprise is at present more active than private enterprise.

How do the Industrial Cooperatives fit into the picture in Free China? Their primary importance is not in the cotton industry, but in laying a broad base of diversified industry. They will soon have a capital of \$40,000,000, and total value of production to the end of July, 1940, was about \$55,000,000; monthly production at that time being estimated at nearly \$9,000,000. Their 1,800 co-operatives at the end of May employed over 64,000 workers, and, according to Alley, had increased to nearly 2,000 at the end of July. Aside from the cotton yarn spun by the big mills (some of which is purchased by Indusco) the C.I.C. is producing a very considerable percentage of the finished products of light industry in Free China. It is significant that the C.I.C. received the order for 1,900,000 army blankets, for it was not through favoritism. Thirty thousand industrial cooperatives should be able to increase total industrial production in Free China several hundred percent.

According to Government statistics, the production of all factories removed to the interior totalled \$250,000,000 during 1939. This included forty machine works, cotton mills, flour mills, canneries, steelworks, etc. The value of the equipment salvaged was estimated at \$450,000,000, including Government arsenals and munitions plants. Of this annual production, \$8,000,000 was the output of purely government factories, excluding military establishments.

From these figures, it can be seen that the C.I.C. is producing

monthly more than the *yearly* output of other Government factories, hence it would appear to be the Government's primary industrial base at present. C.I.C. has ten machines shops as compared with not more than fifty in all the rest of Free China. Within two years of starting its first tiny production in September, 1938, the C.I.C. will have produced \$73,000,000 worth of goods, as compared with the one year's production of \$250,000,000 mentioned above. The C.I.C. can now produce over \$100,000,000 a year with a loan capital invested of less than \$10,000,000. When the total forty million has been put to work, the annual output should be \$480,000,000 at the present ratio of 100% turnover a month. This rate may fall, yet a guaranteed source of circulating capital, which the C.I.C. has not had in the past, will greatly improve supply, technical efficiency and productive resources.

Lu Kuang-mien has stated that \$1 invested in the C.I.C. is worth \$100 in private industrial production under present circumstances.⁵ It has the advantage of being a type of production that can build its own supplementary bases in agriculture, supply and marketing, keeping down costs through cooperative methods, and this augurs well for its future.⁶

To compare recent investment in agriculture, the various Chinese banks had loaned approximately \$100,000,000 in credit to farmers up to the end of 1939. Of \$5,650,000 set aside for loans in agricultural production by the Agricultural Credit Administration, only \$1,884,359 had been extended at the end of 1939 in eight provinces.

⁵ The delay in putting private factories into production is indicated by the fact that the factories removed to the interior after the war began in July, 1937, with a loan of \$9,000,000 from the Government, had produced only a total of \$1,780,000 worth of goods up to April, 1938. Contrast this with the cooperatives who have regularly produced monthly goods worth the same amount as the capital invested.

⁶ In connection with the efficiency of cooperative production, it is of interest to note the survival of this form in Soviet Russia and other countries. Even in England there are reported to be 44 cooperative factories and there are said to be 6,000 in Italy. Russia has always been a field for cooperative industry. In 1914 the industrial "artels" in Czarist Russia (the word "artel" was first used in the 12th century), had a membership of five and a quarter millions, constituting a census population of fifteen to twenty millions, or one-eighth of Czarist Russia's population. Their gross annual output was 2,400 million roubles, which was half that of the factory industry. After 1919, and especially after 1932, the Soviet Government revived this form of production, both in the cities and villages. In 1932 there were 20,000 industrial cooperative societies operating 30,000 workshops, with a membership of 2,350,000, or a census population of seven or eight millions. Aggregate gross annual production was valued at 4,500 million roubles. The cooperatives operated coal mines, producing 2,000,000 tons a year, as well as blast furnaces, quarries, chemical plants, radio supplies, etc. These industrial cooperatives manage more than a thousand stores.

2. FOILING ENEMY BOMBERS

"China's new industrial cooperatives, built on the principle of maximum decentralization, are showing their ability to continue working in the face of constant air bombing which has often paralyzed larger factories," wrote *Central News*, after a heavy bombing of Sian on March 14, 1939, in which a shoe-making society salvaged its equipment and materials after being bombed, suffering no human casualties. A few days earlier a bomb landed just outside the C.I.C. office and caused one C.I.C. worker to become a mental case, though nobody was killed. Nine or ten cooperatives are functioning continuously in Sian, however, with time out for air raid alarms.

In the large cities Indusco plants, being indistinguishable from the air, suffer very little from bombing, though they have not remained unscathed in the terrific raids which the Japanese have kept up. In Chungking the Japanese very nearly got the whole C.I.C. staff during the July conference in 1939. On July 24, K. P. Liu was nearly killed when a bomb smashed the C.I.C. office, but the other conference members had just left. "K. P.'s man lost an arm and Engineer Wang may die. Several other workers wounded," Alley reported. The C.I.C. office in Lanchow was very nearly destroyed in a bombing in December, 1939. Raids kept up for several days and large sections of the city were destroyed. The C.I.C. reported, however, that all cooperatives had been moved out of the city by December 15, and after the bombing sent a telegram stating "Three co-ops damaged, no loss of life. A letter on December 31 reported: "We have had a lot of excitement lately, of course. Three morning raids and around 100 bombers each time, the heaviest concentration on one town that the war has yet seen. Fortunately the C.I.C. has not been involved apart from slight damages to a few societies. So far we are o.k. and functioning as usual, but nobody knows what tomorrow will bring." At that time Lanchow's 20 cooperatives were producing \$250,000 worth of goods a month.

Lanchow and one nearby depot had to evacuate while Alley was ill there with typhoid. In fifteen months, however, there was only one hit in the Southeast when a bomb blew off a C.I.C. gate and killed three staff members. The worst loss suffered by the C.I.C. was the bombing of Frank Lem's big match factory in Hunan—the only attempt the C.I.C. has made at large factories. Part of the Hunan cooperatives had to evacuate as the war front closed in. Wanh sien in Szechuan also had to be evacuated in

June of 1940.

Indusco plants in the villages seem to have suffered practically no important casualties so far, though several thousand dollars worth of wool was destroyed in Szechuan on August 19, 1939. Aside from the match factory, which is now operating again, Indusco has lost less than \$25,000^{*} in property due to bombing and war exigencies in two years of work, most of which is not far from the war zone and within the radius of heavy bombing activities. This does not include the expense of evacuating one depot in Kiangsi several in Hunan and the one at Wanhhsien. Such expense is very small for light machinery, however, which is usually carried away on the backs of the Indusco workers themselves or on carts. Not more than a score of C.I.C. workers have so far been killed or injured by bombing, one of whom was Yih Tze-tsao, depot-master in Wenchow, Chekiang.

An example of how the C.I.C. stands up under raids is the intermittent bombing of the Headquarters city in the Northwest, where very little damage has been done in nine months, and morale has been unaffected even among women and children. Aylwin Hogg tells of the first raid in 1939:

"On October 31st the Northwest Headquarters city of the Chinese Industrial Cooperatives was heavily bombed. Some of us had gone out on a trip and from across the river we watched the flight of nine silver planes across the blue sky. We saw clouds of yellow earth shooting up where a bomb had dropped and then, ten seconds later, sickening thuds and crashes. We lay prone in the dust outside the city and hoped there would be no machine-gunning that day.

"When the planes had gone, without waiting for the all-clear siren, we ran back to the city to help save what we could. On the main street our C.I.C. store was on fire. An incendiary bomb had hit the back part and fifty cooperative members, armed with pails and wash basins, staves and brooms, were fighting the flames. Regional Chief K. M. Yu and Supply and Marketing Department Chief Accountant C. C. Ho directed the squads of "sousers," beaters and sand-sprinklers. In less than thirty minutes the fire was out. That was cooperative fire-fighting!

^{*} According to Alley, total C.I.C. losses from bombing since 1938 (as of the end of June, 1940) include Ch.\$50,000 in factory equipment, etc. (of which \$30,000 was represented by damage to the Hunan match factory), and Ch.\$5,000 in damages to depot offices, etc. Three staff members have been killed and five wounded. Four cooperative members have been killed and seven wounded. Also one engineer and five workers have been missing since the Japanese occupation of Swatow.

"And within an hour everything worth saving had been carried away to our cave-warehouse by the C.I.C. truck and push-carts. Almost all the personal effects of the store workers had been burned in their dormitory at the back. The net loss to the C.I.C. was \$2,000 and slightly over \$3,000 to the members.

"The Department Chief, Mr. Ho, succeeded in reorganizing the work immediately after the bombing so that the very next day 'Business as Usual' was announced from the temporary premises outside the warehouse. A few days later he called a meeting of the members. He pointed out:—All the products of the C.I.C. units are sold here in our store and all the societies depend upon us to maintain their supply of raw materials. For these reasons our Department is of unique and central importance to the work. We can well say that the Supply and Marketing Department is the left and the right hand of the whole C.I.C.

"'But the bombing of our departmental Headquarters is not nearly so serious as it might have been. We have long expected it. And now it has come and brought us some good too. The bomb is good free advertising, and the sales of our C.I.C. goods will undoubtedly increase as a result. Then, too, our premises had grown too small for our expanding business and this bomb has saved us the trouble of pulling the old building down. The morale of our cooperative workers has been strengthened; and, in spite of our private losses, we work together better and harder than ever before. Here too we have gained from the bombing.'

"The store was not the only casualty the C.I.C. suffered from the raid. The blacksmith cooperative outside the East Gate was hit. Here ten members lived in a little wooden shack with their shop in front. For months they had been saving up enough funds to secure better quarters and to bring their families from Loyang. The bomb fell just across the road and destroyed \$100 worth of their property in a few seconds.

"The October 31st bombing has brought to the attention of all the importance of cooperative mutual aid and insurance. With the help of one of China's veteran cooperators, Prof. J. B. Tayler, the Northwest Headquarters is now working on schemes for a members' mutual aid association, which will render assistance in illness, marriage, and death. An association of societies is planned which will insure cooperative units against fire, theft and bombing. The cooperatives are, for the most part, carefully built in caves against air raids; but the Headquarters feels it important to guard against disaster falling on one section of the members alone, especially since certain branches of C.I.C. work must of necessity

be located in the business centers which are open to bombing. It has been suggested that a special fund be set aside for assistance to societies damaged by bombing or other disasters.

"Whatever the result of the planning, the central issue remains clear. The members say, 'If we are bombed once, we will rebuild once; if we are bombed ten times we will rebuild ten times.' A few hours after the front wall of the blacksmith cooperative had been knocked out, the members of the cooperative were rebuilding their shop. The marketing and supply cooperative has found new premises in a more central location; and here it hopes to increase its present \$2,000 daily turnover."

Even if the Japanese were able to make direct hits on all Indusco units at one single time, including their bank accounts, the loss would be only Ch. \$6,000,000. In the meantime C.I.C. has already produced \$40,000,000 worth of goods. The mere expedition would cost Japan many hundred times as much.⁸

The Japanese seem determined to annihilate all factories and Chinese bases, even if they must go bankrupt to do so. During the heavy bombing of Chungking on June 16, 1940, four waves of bombers dropped 800 bombs within a few minutes and demolished 3,000 houses, including new Government buildings. How many industries were destroyed was not reported, but during June and July bombings, the damage was said to be "several millions." The C.I.C. suffered very little, and gained a great deal of face with its record of immunity in all provinces among those who have persistently believed that large factories could keep going in the cities. The Japanese have deliberately waited until millions were spent in building such factories, with the hope of causing the maximum of capital and morale loss at the selected time.

3. THE RURAL COOPERATIVE MOVEMENT

How solid a base in agriculture has the cooperative movement in China as a support for cooperation in industry?

Rural cooperatives have developed rapidly during the past ten years, but have been a disappointment to sympathizers and investigating cooperative experts. Due to the fact that the relations of production on the land are still largely semi-feudal in character,

⁸A United Press despatch from Chungking on June 19, 1940, stated: "Experts estimate the expense of each Japanese bombing expedition to Chungking costs Tokyo's war chest about \$40,000,000, on the basis that only 100 planes participate with five or six shot down. This great expenditure cannot be compensated for by the damage which consists mainly of the destruction or burning of age-old, badly constructed west China native houses of civilian residents."

rural cooperatives have inevitably tended to become absorbed into the old system, as in other Asiatic countries. This is not because Chinese do not make good cooperators, but because true cooperation cannot easily be superimposed upon an unregenerate semi-feudal peasant structure. The gentry and landlords get control, and many of the old evils permeate the movement.

There is a fundamental difference between the new industrial cooperatives and all other previous attempts at cooperation in China. It is this: that these industrial cooperatives create a fundamental change in the relations of industrial production. The only analogous method of bringing true cooperative principles to agriculture is to create cooperative farms of owner-producers, thereby bringing about this fundamental change in the relations of agricultural production. This is the corner-stone. The situation is quite different from that in modern countries, where the transformation of the old peasant-and-landlord economy has already taken place.

Rural cooperation in China has been a heartbreaking task for the believer in true cooperation, for his principles have been violated at every turn. It is possible to start a small model center, but soon the surrounding social and economic relations corrode and destroy the attempt. A small island of sand cannot long survive in a great stormy sea of opposition. And if this attempt is subsidized it will collapse when the outside support is withdrawn, without ever having succeeded in one basic cooperative principle: self-support and spontaneity. This is the pathetic result of many such experiments in China in cooperation and mass education. In the case of the industrial cooperatives, the only guarantee that they can maintain their true cooperative character is that they can expand and federate quickly enough to gain the strength necessary to hold their own. Any small model experiments are doomed to eventual failure. They must inevitably be poisoned by pathological conditions on the outside. They cannot exist in a pneumatically-sealed tube for long. One compromise leads to another, and the weaker must always submit to the stronger. The only hope is to move forward dynamically, faster than the reaction can work against the attempt. It is the genius of Rewi Alley that he recognizes this often-demonstrated fact, and puts every effort into building as fast as possible in order to meet the opposition on its own terms. "A few cooperatives cannot stand; thousands can", is his constant reminder. Nothing ventured, nothing won. One must have not only vision and belief but courage, and half-hearted attempts will never win a victory. Talking and classroom idealism melt into

disillusionment and despair, unless the strong opposing economic forces are overcome by quick action while the opportunity exists.

The principal result of rural cooperatives in China so far has been to bring banking capital to the provinces. In 1938, 86% of all societies were credit unions. To be really effective, and break down the old system of usury, these loans should be made directly to poor peasants' cooperatives. In practice, however, they are usually handled by the gentry class, who are themselves the usurers, and exorbitant rates are frequently charged the peasants, who are sometimes put into prison when they cannot repay the loan. This middleman's squeeze does not help the banker, but it bolsters up the landlord power in the interior. In other words, the rural cooperative movement works through the existing social and economic mechanism, rather than causing any fundamental change in it. This is deplored by those cooperative workers who are sincerely interested in building a new movement from the ground up, but the old system is usually too strong for them and they must make many disastrous compromises. Some regions, of course, are better than others in this respect, and in most cases the former fantastic interest rates charged the peasants have been brought down. For example, the credit unions in Hopei made it possible for a Hopei farmer to obtain a loan at 1 and $\frac{1}{2}$ % interest a month, or, say, \$36 a year for a loan of \$200. Prior to this he was obliged to pay 2 and $\frac{1}{2}$ % to 3% monthly—or from \$60 to \$72 annual interest on a \$200 loan.

There is an attempt now to closely integrate the rural cooperatives with the old *pao chia* system, by means of which the gentry keep their stranglehold over the peasantry. Dr. Lewis S. C. Smythe⁹ says of this: "There has been a tendency during the past year for the Central Cooperative Administration to institute some form of 'compulsory' *pao* credit cooperatives throughout the country in connection with the new *hsien* system. In this, every family head in a *pao* would be *required* to join this credit society. Such a system would be a parody on cooperation as we have described it here and should not be even called by the same name."

It is very difficult to find accurate sources on the history of the cooperative movement in China and I am indebted to Dr. Smythe for the following, taken from the same very excellent article quoted above:

"The Cooperative Movement in China had its roots in the "May

⁹ Cooperatives and Christian Missions, by Lewis S. C. Smythe, *The Chinese Recorder*, August, 1940.

4th Movement" of 1918, and in the efforts of Dr. Sun Yat-sen and other Kuomintang leaders as early as 1919. It began with consumers' cooperative stores in Peiping, Shanghai and Swatow, and with producers' cooperatives as the Tating Co-operative Society in Hunan, the Peasants' Co-operative Society in Hsiaoshan, Kiangsi, and the Changsha Pen-Makers' Society. The early recognition of the need of education in cooperation brought about the Weekly Co-operative Institute in Shanghai in 1923. The program of the Second National Congress of the Kuomintang in 1926 included the provision that all forms of farmers' cooperatives should be promoted. Chiang Kai-shek and Chen Kuo-fu jointly proposed at the Fourth Plenary Session of the Central Executive Committee of the Supervisory Committee of the Kuomintang in February 1928, the organization of farmers' banks and the organization of all kinds of cooperative societies.

Thus it will be seen that the cooperative movement in China started apart from the active promotion of Christian Missions. However, in the Autumn of 1917 an Anglican missionary (S.P.G.) Rev. Fred Hughes, a spiritual descendant of the Christian Socialists so prominent in the British cooperative movement, organized a credit society among the farmers in his parish of Anp'ing, south of Paotingfu. They were sufferers from the great flood of that year. After successful rehabilitation they returned the loans and the society was dissolved. But it had its results in interest in Peking and Tientsin and locally, as is reflected in the fact that the first union of credit cooperatives in China was formed in Anp'ing. It was in connection with famine relief in 1921 that the China International Famine Relief Commission, with a number of missionaries on its staff and with active help from the American Board, began to experiment with farmers' cooperative credit societies. The first such society was organized near Nanking under Professor Paul C. Hsu, of the University of Nanking, which was then representing the C.I.F.R.C., in organizing the first ten societies financed by the Relief Commission as an experiment. The first farmers' marketing cooperative in China was organized in 1926 at Wukiang, near Nanking, by the University of Nanking. Professor Paul C. Hsu was instrumental in securing the first governmental recognition of cooperatives in China from Governor Han Kwoh-chuin of Kiangsu Province, and later helped draft the Kiangsu cooperative law in 1928. The first national cooperative law was not proclaimed until September, 1935, recently revised in November, 1939. The agricultural missionaries, Dr. J. Lossing Buck and Mr. John Reisner, at the University of Nanking, were also vitally interested in this deve-

lopment. While in the societies later developed under its Extension Department the educational and social side of the cooperative was promoted, the general emphasis of the Department of Agricultural Economics of the University of Nanking was on the economic side. They insisted that cooperation was more a form of business organization than a philosophy or a philanthropic effort. But to disentangle the technical and the philanthropic interests of these Christian sponsors would be difficult! Professor R.H. Tawney of the London School of Economics furthered the technical interests in both farmers' credit societies and industrial cooperatives by his recommendation during his visit to China in the spring of 1931.

"Thus the consumer and productive cooperatives were first promoted by Kuomintang leaders and they gave political backing for the whole movement. But farmers' credit societies were first started by missionaries, the C.I.F.R.C. and the University of Nanking. Through promotion by the C.I.F.R.C. in the north and, after the 1931 Yangtze flood, in the Yangtze valley and by provincial government cooperative commissions, the number of cooperative societies increased rapidly from 1 in 1918, to 722 in 1928, to 37,318 at the end of 1936 and to 90,738 societies in February, 1940. In 1938 the credit societies were 86 per cent of all societies. The rapid growth continued through the sudden impact of the war in 1937. In the *hsien* reporting in both years, 1936 and 1937, the total number of societies nearly doubled, increasing from 15,061 to 28,440. In 1938 more complete reporting showed 64,565 societies. The latest figure for the total number of members was at the end of 1937, 1,541,785 members in 28,449 societies or an average of 54 members per society. If the same average size applies, there would have been 4,870,000 members of cooperatives in China in February, 1940. Loans to these societies during 1939 totalled \$140,109,321 with a total of outstanding loans in February, 1940, of \$74,978,049."

Marketing cooperatives are a vital necessity and some good work has already been done along this line, notably by the group under J. B. Tayler. Consumers' societies are very few, and face many obstacles in such a backward economy where production is of primary importance and the market not yet developed due to poverty of purchasing power.

Before the war with Japan, at the end of December, 1938, there were 37,318 cooperative societies with 1,643,670 members registered with the *hsien* and municipal governments, an average membership of 44 for each society. Classified by function, credit societies stood first, numbering 20,620 societies, or 55.3 per cent of the total

existing cooperatives. They were followed by integrated societies (multiple functions) numbering 10,514 societies, or 28.2 per cent; production, 3,199 societies, or 8.6 per cent; marketing, 2,366 societies, or 6.3 per cent; consumers, 296 societies, or 0.8 per cent; supply, 267 societies, or 0.7 per cent; and public utility, 56 societies, or 0.1 per cent. Up to 1933 the principal activity was in Hopei, Kiangsu and Chekiang.¹⁰

Since the war, cooperatives have been pushed in Szechuan, Kweichow, Yunnan, Kwangsi and Shensi particularly, and \$30,000,000 was made available to the movement in 1938. According to figures supplied to the writer by the Ministry of Economic Affairs as of May 1, 1940, China had then the following rural cooperatives (no statistics were available for the various types, but the vast majority are credit unions):

<i>Date Taken</i>	<i>Provinces</i>	<i>Number of Societies</i>	<i>Number of Members</i>
Sept. 1939	Chekiang	2,937	83,819
Nov. 1939	Anhwei	4,768	241,678
Nov. 1939	Kiangsi	8,333	652,641
Dec. 1939	Hupch	6,607	402,203
Dec. 1939	Hunan	7,078	178,231
Jan. 1940	Szechuan	16,968	921,677
Oct. 1939	Sikang	260	13,521
Nov. 1939	Honan	4,395	326,252
Dec. 1939	Kansu	4,681	229,539
Aug. 1939	Fukien	4,103	210,860
Jan. 1940	Kwangsi	4,671	172,179
Dec. 1939	Kweichow	7,074	267,661
Oct. 1939	Yunnan	65	2,418
Oct. 1939	Shensi	5,243	264,982
Oct. 1939	Kwangtung	674	54,143
Oct. 1939	Chungking	129	1,904
	(Municipality)		
Total		77,983	4,026,108
(Kiangsu Province)		12,755	334,790
Grand total		90,738	4,360,898

Rural cooperatives are under the general control of the Central

¹⁰ The minimum share value is set at Ch.\$2, and the average share capital contributed by members is usually under Ch.\$5. For example, figures on 1,072 cooperatives in Chekiang at the end of 1933 showed that the average amount contributed by one member of the credit unions was \$3.95; of the consumers' cooperatives (including supply societies), \$7.24; of the producers' societies \$3.31; of distribution cooperatives, \$11.12. The total average was \$4.71.

and provincial governments, through the credit facilities which are arranged with the semi-government banks. At the end of May, 1939, the Central Cooperative Administration was established as a branch of the Ministry of Economic Affairs, and this organ has plants to expand all branches. It announced a Five-year program of cooperative development beginning in 1940, to include "a war area cooperative promotion plan, a cooperative organization and working scheme, a servicemen's consumer cooperative league, a disabled soldiers' productive cooperative society, and many others. . . . Particular emphasis will be given to starting consumers' and transportation cooperatives in order to strengthen the movement. . . . A series of marketing cooperatives to be financed with \$5,000,000 from the four government banks will be established by the administration."

The administration conducts a training institute in groups of 20 for a two-months period, though advanced courses are given by the Central Political Institute, a Kuomintang school for civil servants.

Rural cooperatives are being pushed in Szechuan especially. According to a Government report, in 1939 a total of \$27,085,472.74 was loaned to farmers there by the Szechuan Cooperative Treasury (\$13,923,655.14 or 51.41% of the total), the Bank of China (\$4,404,659.40 or 19.95%), the Farmers' Bank of China and the Agricultural Credit Administration (headed by Dr. Franklin Ho). As of February, 1940, it was stated that 33% of the above loan had already been repaid. In October, 1939, it was reported that Szechuan had 60 country cooperative banks capitalized at \$10,000,000. At that time credit and mortgage loans to the farmers from these banks amounted to only \$1,501,341, however. The banks purchase grain from the farmers for storage, and \$15,416,000 was set aside for this purpose.

In an unofficial report dated February, 1940, it was stated that "Kweichow has 81 *hsiens*, of which 69 have well-established cooperative societies, each capitalized at \$100,000. . . . By the end of October, 1939, there were 6,490 cooperative societies in Kweichow, to which the Provincial Treasury and the banks had advanced about \$6,000,000. Out of this, \$5,000,000 have already been paid back." Dr. Franklin Ho, head of the Government's Agricultural Credit Administration, has been very actively co-operating with Governor Wu Ting-chang in this work.

Fukien, before Japanese occupation of the coast, was an example of a thriving cooperative movement under Dr. Fancis Chen. An enthusiastic account by Edith Simester in the *China Weekly Review*

of May 6, 1939, relates that \$7,000,000 had been loaned to cooperatives in this province within the two years after the movement had started, which included credit, consumer, marketing and producer cooperatives. Collection of loans had been extremely good, the average for the province being above 95%. In December, 1937, there were 1,919 societies, with a membership of 120,000, which increased to 2,600 in December 1938, numbering 170,000 members. "Land-owning is becoming a cooperative enterprise. There are many societies throughout the province which own land collectively and work it collectively. The societies in Shaowu alone, own 1,635 *mow* of land." Edith Simester remarks upon the difficulties of the movement that "there has been noticeable opposition from certain groups; especially since the cooperatives have become strong enough to compete with the corrupt gentry, the greedy landlords and the self-seeking citizens of the various communities."

It is not encouraging to investigate too closely the troubles of rural cooperation in China, but one must remember that historically the Industrial Revolution must destroy the feudal bonds of a people and lay the foundation of a new economic order, before they can successfully go on to higher and more progressive forms of organization. What is of more interest to us here than the inadequacies of past cooperative efforts, is the courage of the Chinese in carrying out this Industrial Revolution itself through the cooperative method. This has never been done before, and it is a great step forward for the future, if it succeeds. If the Industrial Cooperatives become a powerful ally in every province, the rural cooperatives will be able to break through the feudal superstructure that cripples and distorts them and proceed to develop along true cooperative lines, with good marketing and production societies as a solid base. Consumers' societies can also develop. To assist cooperative farm production, Indusco can provide the machinery for mechanization and better farm tools, as well as fertilizer, scientific research facilities, and other necessities. Cooperative farms, by means of which scientific farming can be introduced, are a great advance over the redistribution of land into small parcels among private owners, in considering a solution of the long-standing agrarian problem of China which will become more acute as economic distress intensifies.

4. DIFFICULTIES

The tragedy of the Industrial Cooperative movement is that it was not started a year or at least six months earlier. Even in 1938 and 1939, however, it was still possible to salvage huge quantities of

machinery and tens of thousands of skilled workers from the coastal cities at comparatively little expense, had large capital funds been available. By 1940 the Japanese had blockaded the coast and closed the Indo-China and Burma routes. Local expenses had doubled and exchange rising from five to over twenty to one for US currency made imports of machinery prohibitive. This in turn made industrial cooperatives infinitely more important to the national economy, however.

The principal failing of the Chinese, it seems to me, is lack of vision, of long-term planning. As a result, they seldom act until action is forced upon them. Then it is too late for maximum efficiency. The Chinese banks could easily have invested twenty to thirty million or more into this type of war industry; it would have saved that in foreign exchange alone. England and America could have come to the rescue easily at that time also.

The most important difficulty of the C.I.C. from the very first has been lack of ready capital for development work and funds for running expenses. The original \$5,000,000 appropriation was doled out so slowly and carefully that work in each headquarters was held up at the very moment when it was most needed. The engineers in the field bombarded Hankow and Chungking with telegrams and letters begging for large sums to purchase bargains in machinery and plants from doomed cities, but they received only a minimum of capital and even this was unnecessarily delayed by weeks of red tape and inertia. There was a tendency to try to run the naturally-decentralized movement as the usual dictatorship from Chungking, with the result that field work everywhere was blocked and held up, and the technical staff seemed on the point of resigning as they saw their opportunities lost and the waste of precious time at so crucial a moment. This was due to a natural caution on the part of the Government, but also to obstructionist tactics on the part of powerful but petty-minded officials.¹¹ It was also due to a lack of understanding of the initial problems and necessities of work. The Indusco leaders saw their movement as a chain of organized industry in every province, as a fast-growing

¹¹ This was not the fault of Dr. Kung personally but of a few subordinates, together with opposition elements in other branches of the Government. On the whole, Dr. Kung has handled the movement extraordinarily well and has let it develop as a true cooperative movement without imposing the heavy hand of bureaucracy on it. He has not interfered with the field work. Had the C.I.C. been started as a branch of the existing Government bureaucracy in the economics field, it would inevitably have fallen into the same mould. In order to function at all, it would have had to be under political patronage and dominated by this or that clique, who would have selected the personnel in the customary way, which causes so much inefficiency in the Government.

popular *movement* rising to help win the war and keep up the *morale* of the people. They wanted 30,000 cooperatives as quickly as possible, for it was clear that a few isolated depots could not stand, but that thousands organized in an inter-provincial system could become a strong industrial base and a sound business undertaking to absorb millions in capital and tens of thousands of skilled workers. On the other hand, many of their sympathizers at first had little confidence in the scope of the work, and regarded it as a relief measure or an experiment. Even some cooperative enthusiasts, generally wanted to limit the work to model centers and to pay attention only to the correct cooperative phase without a vision of ultimate large objectives. This is a common limitation of cooperative men educated abroad, and of reformists who think in terms of Utopian idealism rather than practical necessities. Alley and the engineers and leading organizers, however, fought for the larger objective and for democracy and spontaneity in the movement.

As a result, the movement had to prove itself in the field and suffer unnecessary limitations before it was able to secure any important financial or moral support. Not until 1940 did the Government make available the remaining first important loans. As none of the Chungking officials went out into the field to investigate, they could not believe the reports of progress. When Indusco held its first exhibition of products in Chungking in July, 1939, it was so surprising that certain individuals would not believe their own eyes. They went to Dr. Kung and reported that some of the modern exhibits were actually imported Japanese goods. A pathetic commentary on the lack of confidence in their own people! Dr. Kung was startled for a moment, but the story was promptly scotched and the Finance Minister proudly took home an armful of goods to show to future critics. His organization had built 1,200 cooperatives representing 50 different kinds of industry, with a capital in the field about \$2,500,000, including outside contributions, bank loans and administrative expenses. Compared with the millions in Government money spent to subsidize other industry, it was a fantastic result and the opposition lost a good deal of face.

The disruption due to the fall of Hankow in the autumn of 1938 caused cooperators in the field many a headache. They were unable to get funds from the Government, and K. M. Lu had to make the long trip to Shanghai in an attempt to secure bank loans to tide over the crisis in the Northwest. Frank Lem in the Southwest got hold of seven important factories and could not collect the \$150,000 required for the purchase for weeks. Everywhere it was the same. For many months afterwards lack of capital held up the

work at a strategic time. Hundreds of cooperatives were organized waiting capital. Special funds were also needed to hire technicians and bring skilled workers from the coast. Without these, the hands of the staff were tied. Each headquarters required large amounts of capital to build its base intelligently, but each was obliged to get along with a minimum. Lack of capital is still the major drawback to the movement. Alley has said that the 30,000 cooperatives could easily have been built by 1940, had capital been available. Even more important than lack of immediate capital has been the uncertainty of financial backing, which made long-range planning difficult.

A second difficulty has been transportation, though Indusco suffers less from this problem than any other type of industry. Lack of funds has made it impossible to purchase trucks and gasoline. The C.I.C. owns only three, two of which were contributed from the Philippines. Alley tried to get hold of charcoal-burning engines without success. The engineers have improvised in the meantime. Indusco depends largely on pneumatic-tired carts, manual labor, wheelbarrows, boats, etc., and operates its own Transport Cooperatives. The Northwest has a fleet of 150 rubber-tired carts—none other are permitted on the military roads. The Hong-kong committee tried unsuccessfully to arrange with British and American companies to finance a transport system. Trucks are sold in the interior for four or five times the price on the coast. In 1939 gasoline cost \$28 a tin in Chungking, \$25 in Kwangsi and Hunan and \$18 in Kiangsi, while it was only \$9 in Chekiang. Even so, a permit was required, and it was almost impossible to obtain.

Lack of good technical personnel has been another problem, though this too would have been largely obviated had the C.I.C. been able to pay high salaries to engineers from the coast. In the meantime many technicians and skilled workers have been obliged to take jobs with the Japanese or in Shanghai factories. Indusco had to cut corners sharply with only \$40,000 a month to pay for a technical staff of 500. Today it is just as hard put to pay for its staff of 1,000 with \$100,000 monthly. Salaries of technicians are lower than in other Government work, and only the dozen No. 1. chiefs receive more than \$200 a month. This has avoided opportunist elements and you may be sure that the leaders of the movement are interested in it for its own sake and not for the salary. You can usually judge a man's integrity by his reaction to a cause in its unpopular stage.

There must be at least several thousand engineering graduates in China, of whom only a small percentage are at work in the in-

terior. Many are unemployed in the treaty-ports or working as clerks there. C.I.C. should be able to get hold of hundreds of these when its budget permits, though probably it must pay for travelling expenses as well as a salary high enough to support a quantity of family dependents. There were an average of about 45,000 students in Chinese universities in the 1930's, of whom from 25% to 37% studied "science, agriculture, engineering and medicine." Twenty-one engineering colleges have been turning out students for many years, while there are also hundreds of first-rate overseas Chinese engineers. Such Chinese, unfortunately, do not usually volunteer until they are sure the new movement is in a definitely affluent financial condition.

According to Dr. Ku Yu-hsiu, in March, 1940, there are in Chinese universities the following 77 engineering departments: 22 civil engineering, 14 electrical, 12 mechanical, 8 chemical, 7 mining and metallurgical, 3 aeronautical, 3 hydraulic, 2 architectural, 2 textile, 1 surveying and 4 in engineering administration. The enrollment for 1940 was about 8,000.

Indusco requires special personnel with a spirit of struggle and personal sacrifice, and is not a field for opportunists. The work is hard and dangerous, and China has not produced many intellectuals capable of action and creative construction, unfortunately, though it has an abundance of foreign college degrees. The backbone of the C.I.C. is its engineers, its machinists, iron founders, coke burners, glass makers and other skilled workers. It has absorbed only a small percentage of the available personnel so far, but there is no reason why all idle technically-trained persons and intelligent social-minded organizers should not find their way into its ranks. The C.I.C. has appealed for the services of engineers, chemists, and all kinds of technicians, including overseas Chinese.

Through its technical classes and training schools the C.I.C. is fast building up its own personnel. Accountancy was one of the first problems. Indusco had to train its own, and to teach the co-operative managers elementary bookkeeping, many of whom were illiterate, though all Chinese have excellent memories for money matters. Nothing is more important than training the members in accountancy, for this is where so much "squeeze" is made in China by the officials and their agents, who make dupes of the illiterate workers.

The present leading personnel, however, is the best possible and only needs to recruit more of the same type. Aside from the foreign-educated engineers, it has taken in scores of well-trained workers from the rural cooperative movement, especially those

trained under J. B. Taylor, those from the Tingshan Experiment, from the China International Famine Relief Commission, from the railway engineering works, Y.M.C.A. and Y.W.C.A. organizers, Red Cross workers, and many from various universities. No other group in China in many years has accomplished so much as the C.I.C. staff, considering the conditions it works under.

While we are on the subject of personnel, I may say that there has been no suspicion of squeeze in the C.I.C. as yet, though some of the members have refused to accept or give bribes to officialdom. In China this is a great achievement, and it is this fact which accounts for much of the enthusiasm of foreigners for the present personnel and for much of the lack of enthusiasm from certain Chinese circles. As the movement expands and becomes prosperous, this will become a problem undoubtedly, though the constitution of the societies is a very effective check. Now that the banks are giving such large loans, they tend to want a hand in the administration. Any evils from this interference can only be met by insisting upon cooperative principles, and it is to be hoped the banks will see that the real efficiency of the movement depends upon its cooperative character rather than upon a horde of superimposed outside accountants and officials who are much more likely to squeeze than any of the members, as has been demonstrated in the rural cooperative movement and all other forms of industry.

It is because the C.I.C. is a new movement, building from the ground up, that it has not become infected with the usual corruption in China, in which the old bureaucratic personnel are so well-qualified. It has been too poor so far to attract the "squeezing" variety, fortunately.

The Industrial Cooperatives have, of course, encountered all the difficulties inherent in a backward agrarian country in wartime conditions. The problem of getting raw materials and chemicals is one. This is partly met by moving industry to the source of such materials and by building up and improvising the necessary plants to provide essentials, and by developing its own mining facilities. The C.I.C. is building its own supply system, with agents as far west as Sinkiang, Chinghai and Sikong, for wool purchasing, etc.

The eighteen Indusco machine shops and foundries make most of the machinery used—from sugar and flour mills to printing presses and looms. This can be expanded as required, though blueprints of all kinds of machinery have been requested by the pattern-makers and engineers. Indusco can build its own iron industry, though at present the total annual output of China is only 50,000 tons, while the total daily steel output is fifty to sixty tons.

According to Dr. Wu Po-yan, of the Ministry of Mines Affairs, the finest iron ore in China is in the province of Szechwan, of a fineness of 63% to 72%, and he estimates this reserve at about from ten to fifteen million tons. Dr. Wu also stated that there is a reserve of one hundred million tons of copper ore. Coal and iron exist in many provinces.

Machine tools and lathes are being turned out by water-power or adapted charcoal motor-powered lathes. Much of the machinery is primitive but sufficiently good for present needs. The steel die manufactured by C.I.C. machine-shops for Ch. \$500, would cost Ch. \$3,000 imported.

Some of the products turned out by one machine-shop in Kiangsi are the following: platen-type printing presses, hand-presses, hand-presses and dies for the manufacture of buttons from old kerosene tins, etc., oil presses, small platform weighing scales and weights, hand-weaving looms for towels and cloth, motor car springs, manual rolling machines for bakeries and food shops, rice mills, three types of hand grenades, foundry equipment, moulds for bottle making, laundry irons, hand tools for tanneries, sugar mills, charcoal gas engines, etc.

The improvisations made by the mechanics are amusingly illustrated in this letter to Alley from one of the C.I.C. workers, Michael Hu:

"I think you will be interested in my small result in making alcohol. I made up a distilling apparatus, using printing-ink, milk, cigarettes and a kerosene can, so small that I called it 'Guerrilla's Alcohol Still.' I got alcohol 95 percent with it.

"I am continuing to make various experiments, because I believe that to improve a native industry is far easier than to build a new one."

The cooperative form of management is found to be easily applicable in China and this a minor problem, though a good deal of education is required to make fully-conscious cooperators of all the workers. The Chinese have always had guilds, various kinds of "*buis*" and mutual protection societies, so the idea is nothing startling. Fortunately, too, most of the cooperators are too poor to have conservative ideas, for it is in the propertied class that one finds the old system so firmly entrenched. The C.I.C. is building a totally new structure, and up to now has not had to compromise with the old system as the rural cooperatives have been obliged to do. It has nothing to do with the former guild methods, which have been a drawback to industry due to their medieval craft jealousy, secrecy, and provincialism. The cooperative engineers

immediately make blueprints and drawings of all improved or adapted industrial processes, and four technical magazines are published for the purpose of disseminating this information widely.

The war emergency makes it possible to create a modern co-operative system in China, for it has broken down provincialism and old prejudices. Every cooperative center has men and women from many different provinces, working together in harmony in their mutual struggle for a livelihood, and each group soon develops a new national consciousness and pride in building cooperative industry. It is of great importance to note the possibility of extending the system on a large scale to Tibetan, Mohammedan and tribal areas, which for so long have been the scene of bitter warfare against the Chinese as well as against each other.

The Chinese worker is far more advanced than the peasant and much more capable of cooperation. What C. F. Strickland has said of the rural cooperatives, might be applied with greater emphasis to workmen's cooperatives:

"The three outstanding qualities of the Chinese farmer are (1) his honesty, (2) his common sense, his fitness for understanding simple business, and (3) his community spirit. I have seen few countries in Europe and none in Asia, in which a sum of money, lent to a handful of peasants with so little prior training or subsequent guidance in its management, would be divided so fairly, repaid so punctually, and so seldom misappropriated, as by the cooperative farmers of Hopei province. Hopei has longer experienced co-operation than the rest of China, but elsewhere too, the societies, where allowed a reasonable discretion by the officials or banks, have shown themselves worthy of trust. The failures appear to me to be due either to excessive interference in details from above, or to inadequate teaching of co-operative principles and methods; and usually to both these causes."

The accumulation of its own capital for expanding industry is going to be a problem confronting the C.I.C. in future. For this reason, it would be socially desirable for the industrial societies to make as high profits as possible in the early stages in order to put this capital back into production and strengthen the cooperative system. At present 6% to 9.6% interest is being realized on loans, but this rate would be too slow to build up capital for expansion. Surplus is now being divided so that part is set aside for expansion and part for reserves. In a stage of infant growing industry, it is essential that the consumer "cooperate" with the producer by paying prices high enough to make possible plant extension and improvement. With the consumer in control in China, return or

capital would probably be cut down to the point where it would cripple the productive system—thereby causing infantile paralysis to this new economic system, and making it impossible to build strongly and quickly. This happened in England—where industrial production was simply handed over to the capitalist system, for the cooperatives did not arrange to accumulate their own capital to compete in mass production, and when such capital had been accumulated through consumers' organizations, it was too late to build cooperative industry. The essential point about profits is that they should be used for socially desirable ends, for social production and creation, and not handed over to a few private individuals for their own enrichment or as sterile bank accounts, as under private capitalism. The true meaning of producer-consumer co-operation lies in this development of goods and resources for mutual benefit, particularly in the initial period of backward production. This problem of accumulation of capital for productive purposes has not existed in highly-industrialized countries for so many years that cooperators there are likely to lose sight of its essential function, and to think only of the consumers' interests in getting cheap goods and cutting out the middleman. Cheap goods for the consumer cannot be produced until the capital is available for improved and expanded production; this is no less true of cooperative production than of early capitalist production.

The Industrial cooperative movement in China stands an excellent chance of building a solid national system. It is unique in that it has been able to get its initial start with Government and banking loans, making quick development possible, and because of the paralysis of private industry has a chance of utilizing large amounts of banking capital which lack any better form of investment. Primitive capital accumulation has been proceeding in China for several years, but this preliminary stage has not yet advanced into the stage of large private industrial development. Having been concentrated in the banks on the coast, merely for safety, most of this capital is now idle—witness the three billion in Shanghai today. Here is the special dramatic feature of the Industrial Cooperatives: that they may be able to get hold of this capital now for cooperative industry instead of private industry, due to the extraordinary conditions in China which make private industry so precarious and so difficult of management and development. During the continuation of war, the C.I.C. has great advantages over private industry, and if it is able to build quickly enough it can transform these advantages into future power and strength for successful competition in the field permanently. In this connection, it is of extreme

importance that all international sympathizers with the need for social production should assist with contributions to the movement. Another unique feature is this: that it is desirable from the point of view of private foreign industry and foreign Governments that cooperative production should develop in China, rather than the capitalist type. If the latter develops, it will inevitably mean competition on the world market and tend to develop another imperialist rival power. If Chinese industry is built on a cooperative basis, however, it will create and supply its own internal market—and will have no surplus for export as would happen immediately in the case of private industry developed on the coast. This has been fully demonstrated in the past, and is even truer today, as one can see from the exports going out of Shanghai. Japan's interest in building industry in China is in the *export market*—not in the internal China market—where profits are greater and where her huge merchant marine can make money out of transportation, whereas selling to interior China is a much less profitable venture and does not bring so many direct profits to Japanese shipping and capital interests. Indeed, the China market will not be profitable at all under Japanese conquest, for this cannot create mass purchasing power as native cooperative industry can, with its huge payroll and use of labor power rather than so much machinery.

It would be of historic importance and benefit to all the western interests to support the development of Chinese industry on a cooperative basis, and avoid the rise of a rival competitor—either by native Chinese capitalism, Sino-Japanese concerns, or purely Japanese exploitation. For this reason, a US \$50,000,000 or larger loan would have historic consequences for the benefit of the international economic system, and in particular for the protection of American industry and wage standards. This point is recognized by a large number of American and British businessmen in the Far East. And as I have stressed before, it is also to the ultimate benefit of Japanese industry and labor at home, as well as of the Japanese consumer. Japan would be obliged to revise her economic system to give more of the benefits of her industry to the home consumer, and reverse its present direction in search of imperialist markets abroad for higher profits and imperial glory. This would also prevent the rise of a rival competitor for Japanese foreign markets (such as Japanese capital would create at Shanghai)—and there is no reason for China to export. All goods are needed at home if consuming power is increased.

5. THE FUTURE OF COOPERATIVE INDUSTRY

Is this industrial cooperative movement a temporary phenomenon? Will it be able to continue its growth? Will it become absorbed by a capitalist or state socialist society? Will it be destroyed by Japanese competition or other mass production? Will it be merely supplementary to other forms of industry or will it build a so-called "cooperative commonwealth" in China? Will it degenerate into the framework of the old society? All these are possibilities, and the answers depend upon many factors entirely out of the control of the experimenters. I can only offer a few speculations and mention that the field organizers of the movement seem to believe they are laying the permanent foundation for a new society in China and that it will hold its own so long as China does not become completely a colony.

The first consideration is that the potentialities of this movement should not be underestimated. Though it has at this writing less than 2,000 small factories and workshops in relation to perhaps 500 larger factories, including about thirty sizable modern plants in Free China, it is more dynamic and future possibilities are many times greater. It is *basically stronger* than any other form of industry in interior China.

Secondly, one must consider the future growth of the movement and its secondary social and political effects as a factor in judging the future conditions of its existence. Many present limitations will fall away as the work progresses. On a large scale, the movement can be of very great importance in the Far Eastern situation. On a small scale, it is, of course, not a decisive factor.

There are so many variable factors that it is almost impossible to take them all into consideration, but it is my opinion that under all probable conditions in the next few years the industrial cooperative movement in China could continue successfully during those years, *provided* that it receives enough capital within the next year or so to build a broad productive system.

How much capital would be required is a question. It would take at least Ch. \$65,000,000 and probably \$100,000,000 due to rising costs, to create the chain of 30,000 cooperatives projected by the C.I.C. as its initial goal. Ten times that amount would certainly be enough to build a solid base in all provinces, with extensions into guerrilla territories. An investment of, say, US \$50,000,000 (which would exchange at ten or twenty to one probably), would definitely affect both the war and political situa-

tion, by directly building war industry, defeating Japanese economic plans for the interior, and building a democratic movement in China.

Is this capital available? The C.I.C. will soon have a total capitalization of nearly Ch. \$40,000,000 if all present loans go through, and negotiations are practically completed. Chinese banks should be able to invest three or four times that much easily. Some of that three billion dollars idle in Shanghai, \$700,000,000 idle in Hong Kong and US \$90,000,000 of Chinese capital in the United States, should be available, especially if those two cities go to the Japanese.

Nothing would be more important, however, than an immediate US \$50,000,000 or \$100,000,000 Productive Relief Loan from the American Government, for the purpose of keeping up Chinese resistance and *morale*. It is the cheapest as well as the most effective method I can think of for solving the immediate Japanese problem in the Far East, and may enable the Chinese to solve it permanently. If our Congressmen and President would look into this method very carefully, I believe they would not delay voting such a loan. It would immediately result in drawing large quantities of Chinese capital into the interior, if not for the cooperatives then for other investment. It might save that three billion in Shanghai for China, instead of letting it fall into Japanese hands, for one thing. We may well ask why these Chinese don't invest in their own country. The answer is complicated, but it is largely because they simply haven't the far-sightedness to understand the meaning of industrialization, especially in relation to fighting a national or civil war. That is no excuse for Americans.

A good-will loan of, say, 250,000 pounds sterling from the British Government and the release of the promised 100,000 pounds sterling loan from the British Cooperative Movement, would also have an influence upon Chinese *morale* worth many times that amount of money, and go far to revive confidence in the intentions of the British in this war on both continents.

It is a golden opportunity, and if we do not take advantage of it, another great blunder will be chalked up against the democracies—one of a series that have led to their continuing defeat. At worst, it would be conscience-money for past and future misdeeds and errors of omission. The Chinese can fight this war in the Far East to a finish and keep Japan occupied in the meantime—if only they mobilize all their resources before it is too late. They need encouragement more than any physical help strange to say, for they are caught in a vice of international rela-

tions and don't know how to break through. Most of all they need a leverage to break the present political stalemate and release all their energies—this a strong industrial cooperative movement would provide, without civil war, for it would mean a basic change in the semi-feudal conditions of the interior. Even a million dollar loan to encourage the movement might have decisive effects in Free China.

Conditions in China are ripe for an industrial revolution. The war can bring it about. Small industries can be created in an area six or seven times the size of France by the present Industrial Co-operative method, so long as China continues to fight.

Let us look first at the general situation:

1. The C.I.C. movement was the product of war conditions, and its present success is largely due to these conditions. But then so have been most new industrial movements, historically. So long as resistance continues, the C.I.C. will continue to grow and to assume greater and greater importance in the life of China. With strong financial support, it can become a base for indefinite resistance to Japan, both militarily and economically. It so admirably fits the historic necessities of the moment that if logic takes its course, it will become the basic form of industry in Free China in all regions, including the former Soviet territory. Under present conditions, it could create several hundred thousand small factories by expanding its machine-shop and mining facilities. It can make practically all the light machinery required at the present stage, and can increasingly mechanize its production methods. Enough steel, coal, iron, copper and electric power can be developed for this stage of decentralized light industry, even during present war conditions.

2. In event of a "peace" within the next year or so on Japanese terms, the Cooperative Movement would continue in the interior but its future would be a comparatively weak one, though better than that of private industry and large factories in the interior. It could compete with Shanghai and Japan for several years, due to continuing disruption and high cost of transportation. Eventually, however, the whole of China would probably become an economic colony of the Japanese. A nation cannot exist half-slave and half-free for long. Only on condition that the C.I.C. receives about Ch. \$800,000,000 or more in capital could it build up a system of mechanized industry to compete effectively with the coast and Japan for a long period of time. This peace, however, would make all the more necessary the building of industry in the interior from a strategic point of view, both for the Chinese

and the British and Americans. It is needed to counter-balance Japanese domination in the north and on the eastern seaboard. Thus the war would be transformed into an economic struggle and cooperative industry, education and organization would strengthen the Chinese for continued resistance, either passive or active. The Japanese cannot destroy such a decentralized movement militarily. It would still be able to keep up "guerrilla" activities.

In my opinion, however, "peace" would be a myth for many years. It could only mean civil war and banditry in the interior, and the intensification of poverty would still demand industrialization in the interior. China cannot possibly be peaceful under Japanese domination. Economic problems are too deep-lying. Even before the war these problems resulted in constant turmoil and fighting. The Chinese would have to fight the economic invasion in order to eat. Some resistance will continue and for this decentralized industry will always be essential. Even if Japan absorbed two or three million Chinese factory workers on the coast, this would not be of material assistance to internal economic conditions, and such industry would be increasingly mechanized.

3. In event of a civil war in China, the Industrial Cooperative movement would continue to develop as an emergency measure, though it would suffer from exigencies. It would probably form the basis of a settlement by virtue of objective necessity. Capitalist development would go by the boards, and the Communists have nothing more feasible to offer for their own industrial program, much less for a compromise. Cooperative industry would form a democratic base for whatever form of government emerged, and would always be a factor for economic independence against Japanese domination. If the movement had about 50,000 cooperatives in the 8th Route Army areas and perhaps 150,000 in the rest of China, there would be no civil war but a functioning democracy instead.

4. An early Chinese victory is impossible, but assuming that it should be won either in a war of attrition or in collaboration with the United States and England or Russia, the situation would be very confusing. Indusco would have a healthy growth in the interior and have to struggle with new industry on the coast.

In view of past history and present world economic conditions, it is impossible for China to have a normal capitalist industrial development, even if she wins the war. The logic of history points to cooperative production and distribution as a democratic base for transformation into some socialized form of society. If there is

any logic to history, Indusco will probably continue to develop through wars and civil wars until the immense problems of the Far East are settled and peace and prosperity established. It seems an insult to human intelligence to assume that such an opportunity will be passed by.

Assuming that China will not be entirely destroyed by Japan and that Indusco will not be destroyed by the Chinese without a fair fight, let us look into its potentialities and limitations.

It must be noted that the Industrial Revolution has not yet affected China's basic economic system to any major extent, in spite of some industry in Canton, Hankow and other sovereign Chinese cities. Shanghai, Hongkong and Tientsin, under foreign domination, have actually remained *outside* the basic framework, and serve the same general purpose as foreign industry. Imports to the interior from the coast and abroad have broken down handicrafts¹² and disrupted the economy negatively without bringing any of the positive benefits of industrialization, except to the cotton farmers and miners of the north. Japanese invasion has intensified this negative result. China's economy was semicolonial, and foreign competition prevented industrialization on a large scale.

The problem of industrialization has been considered paramount for many years, and was never successfully solved. Most of the industrial experts from abroad who have studied the China situation from the point of view of Chinese needs seem to have recommended small-scale industry, at least in the present stage—which must still exist for many years to come. R. H. Tawney made this point emphatically in his writing on China. At the same time they recommended cooperatives generally, and C. F. Strickland suggested cooperative methods for rural industry years ago, expressing his belief that "Chinese artisans are capable of very close professional association."

We may respect Rewi Alley's judgment on this question, for he made careful studies of both rural industry and city workshops and big factories for many years. It is his belief that the Industrial Cooperatives can stand provided they expand quickly enough over a broad area and build up a good general system of production and distribution.

Under present economic conditions it is practical to use more labor power and less machinery in China, partly because of the need for diffusion of wages and profits to stimulate general econo-

¹² According to Rewi Alley there is very little private small-scale industry remaining in the interior, and this is concentrated in Chungking and such large cities.

mic improvement.

Another point is that since 1927, basic private industry has been unable to develop without Government subsidy, except in Shanghai. Hence, key industries have been developed by the Government. This shows that private enterprise is unable to bring about the essential Industrial Revolution. In future, this will be truer than before. The alternative seems to be between Government or cooperative ownership, rather than between private and other forms. The Chinese Government and bankers have already accepted cooperation in agriculture as the most feasible method for financing, though not for land ownership. The most advanced thinkers are now considering cooperative industry, not from choice but from objective necessity.

Unfortunately, the Government did not see the need for building decentralized industry in the interior during the years preceding the present war. They had a program for industry, but did not take into account the Japanese factor and need for defensive industrial positions. Instead they proceeded to build large plants in Nanking and other cities, which were taken over by the enemy during the war, as was inevitable.

There are a number of reasons why industry has not developed spontaneously in the interior in recent years, aside from foreign competition. These are due to a historical period of disintegration which has preceded the industrial revolution in all countries. First is lack of capital and usurious rates—sometimes from 20% to 60% per annum. Civil war has been another reason, coupled with agrarian unrest. Lack of leadership to improve technical efficiency and management is a factor. The old guild system also worked against development, keeping methods secret and holding monopolies. Inter-provincial *likin*, taxes warlord squeeze and semi-feudal relations of all production have been responsible, too. The present war is breaking down all these semi-feudal conditions, and clearing the path for the Industrial Revolution.

It is important to point out that as late as 1927, there were 11,960,000 handicraft workers in Chinese native industry, as compared with only 1,500,000 in modern factories and a total of 2,750,000 industrial workers in all lines. Yet at that time the textile industry, for example, in cotton and silk, had already practically reached its full growth. There were 4,000,000 cotton spindles in 123 cotton mills and 22,000 reeling frames in 93 silk filatures. Silk declined afterward, and in 1937 there were only 140 cotton mills with 5,500,000 spindles.

Rewi Alley has often pointed out that most of the diversified

production in Shanghai industry, aside from the big textile mills, was carried on in small workshops. The streets are lined with them. There were only 5,525 large factories compared with 16,851 workshops in Shanghai. Cotton spinning is the principal industry where small production cannot compete with big factories in the interior, and the spinning mills in the interior at present usually sell their thread to handloom weavers. The cooperatives in China can easily manage big spinning mills of their own, for labor turnover is not great and the small paid-shares can be transferred without loss of any noticeable amount of profit or capital. In England this was not possible, for members were able to get good jobs in private industry.

Small workshops are still competing successfully in Shanghai in nearly all ordinary trades—metal-polishing, bicycle-making, electrical supplies, foundries, machine-shops, etc., etc. In other words, human labor is so cheap in China that it can compete with the machine, even in Shanghai where power is abundant and cheap and machinery easily imported from Japan and elsewhere. China's capital is her labor power. Money capital has never been available for large-scale industrial investment so far, except in Shanghai. Even in Japan heavy industry was built with Government money. Relative efficiency of factory size depends upon the scarcity of labor or capital.

It is still more surprising to observe the survival of small-scale industry in Japan, where industry is so highly concentrated in two or three cities. This competes right in the heart of industrial sections, and in fact the workshop is the actual base of all Japanese industry. Many of the big factories are assembly plants, including even some in heavy industry. Parts are made in the workshops and sold to the factories.

According to Professor G. C. Allen of the University of Liverpool, in his book *Japan, the Hungry Guest*, the situation is as follows: "If we exclude building and public utilities, there were in 1930 just over four and a half million people engaged in manufacturing industry and some 315,000 in mining and quarrying. Of the numbers in manufacturing industry about half were in workplaces with under five persons, and about 70 per cent. were in workplaces with under fifty persons. To these numbers engaged in small-scale manufacturing trades should be added many other persons (classified in the Commerce group in the Census) who are working in little shops where goods are made as well as sold. Measured in output, the importance of these small-scale industries is less than would appear from the proportion of

total employment which they afford. Some of the workers are only intermittently employed in the trades within which they are classified; there is much under-employment in the little shops; and in most of them labour is less effectively used than in the large factories. Still, with all these qualifications, one can conclude *that the major part of Japan's manufacturing industry is conducted in very small workplaces.* . .

"These small shops have been appearing in remarkable numbers during recent years. Some of them were started by workers who were discharged from larger factories during the depression and who used their dismissal allowances to establish themselves in business. Some originated with farmers who previously carried on industry as a sideline. The producers have shown extraordinary flexibility in changing over to new trades as they have become more profitable, and many workshops are well equipped with power-driven machinery. Cheap Japanese machines of the simpler type both for textile and metal work are now used, and electric power is everywhere available.

"The importance of the small unit in those trades is explained not so much by technical reasons, but rather by the abundance of labour and the scarcity and narrow diffusion of capital in present-day Japan. The pressure on the labour market, caused by agricultural depression, is so great that there is nothing in the nature of standard rates of pay. The small workshops are staffed by members of a family who work long hours for very low returns and by very cheap labour from the country. It does not pay an entrepreneur to risk capital in setting up a factory when he can obtain his supplies so cheaply from numerous small dependent suppliers . . .

"As Japan's cotton industry is one of the greatest of her manufacturing trades, and as many misconceptions about it are prevalent in popular writings on Japan in the West, a brief account of it may not be out of place. It is often supposed that the bulk of the industry is conducted by great integrated companies with interests in all its stages . . . These views are scarcely borne out by the facts. About three-fifths of the wide piece-goods (in quantity), and all the narrow goods from which Japanese-style clothing is made, are turned out by small and medium-sized specialist weaving sheds.¹⁸ Some of these sheds have under ten looms, of which a fair, though declining, proportion consists of handlooms, and sheds with under

¹⁸ In 1935 about two-thirds of the total value of all cotton fabrics were estimated as the share of the specialist-weavers.

fifty looms account for nearly half of all the looms in the hands of specialist weavers.

"... Even in the large-scale trades a place for the small producer can generally be found in Japan. Wherever a large factory is erected, it soon becomes surrounded by multitudes of small workshops which perform subsidiary processes. The neighbourhood of the Kawasaki Dockyard at Kobe is populous with small machinists who are engaged upon jobs given out by the great factory. A large confectionery and chocolate works near Yokohama has attracted to its vicinity numerous small shops in which packing materials are produced. In the foreign-style china trade, the higher quality export goods are made in a few factories which in size and methods of production compare favourably with similar units in the West. Yet, in the lower quality trade the white "bodies" are produced for merchants or large factory-owners by small potters, each of whom specializes on a particular type of article, and the decorating is performed by other small specialists. Some Western observers, who have remarked on the prevalence in Japan of the small unit in the manufacture of goods which in England are produced in large factories, have taken this as an indication of the relative inefficiency of many Japanese industries. But this view is as unjustified as is the contrary belief that the large "combined" mill in part of the cotton trade is a superior form of organization to the specialized mill typical in Lancashire. These contrasts in scale and organization, where they do not depend upon differences in the types of goods produced, can be largely explained by reference to the relative scarcities of the various types of labour and of capital in the two countries . . .

"Although many Japanese think that the survival among them of the small unit in industries which are conducted on a large scale in the West, is to be attributed to some essential and enduring peculiarity of their own social organization, actually the situation is just what might be expected to exist in their country in her present stage of industrial development. Capital is relatively scarce, and industrial labour, through the high rate of increase of the population and through migration from the land, is abundant. In these circumstances it naturally pays to employ industrial processes which require a large amount of labour and little capital."

Alley states that wages paid to the workers in the small-scale industries are 20% lower than those in big factories, and that working conditions are very bad. Cooperative management would be admirable for these workshops. As the Chinese movement develops, there will undoubtedly be an intensified cooperative

For example, a Japanese enamel mug in Sian cost \$6.00 in 1940. These are carried by the soldiers, but Indusco could make tin cups or enamel mugs for from twenty to fifty cents apiece once the industry is developed. There is plenty of tin in the south. Chinese-made enamel mugs used to cost twenty cents apiece when the writer bought one in Sian in late 1937 during the war.

Cost of living has risen much higher in the Northwest than elsewhere, yet this is where Indusco is making its best profits and building its best base. Food for a Northwest C.I.C. worker cost \$8 a month in 1938; by 1939 it was \$12; and in July, 1940, had risen to \$22 for two meals a day.

According to a price index in Chengtu, local prices rose 126% within the year from March, 1939, to March, 1940; and 167% from 1937 to 1940. Part of the rise in foodstuffs is due to profiteering and hoarding by merchants, as well as to taxation. The price of rice in Chengtu rose 75% from 1937 to November, 1939, yet it was only \$35 a *tan* (three hundred weight) at that time, while it was \$52 in Chungking, only a few miles away, and \$104 in Kunming—the latter price was due largely to heavy consumption taxes.

Indices of retail prices in Chengtu made by the University of Nanking indicate that cost of living for workers went up 111% from the spring of 1937 to February, 1940—which is lower than for other classes of the population, the average being 132%.

At the other end of China, the extreme Southeast, Theodore Herman's report on the Kwangchowan C.I.C. depot dated March 9, 1940, states that prices were fantastically high, though this port is easily accessible to Japanese and Shanghai-made goods. A Shanghai-made cotton undershirt cost \$2.30, an enamelware basin \$2.50.

In March, 1939, Alley reported that a pair of dry cells for flashlights were brought in from the coast for \$1.40 to \$1.60, while the Indusco dry-cell cooperative was producing electric cells for twenty cents, by collecting and refilling old cells with new material. Entirely new cells made by Indusco cost a third of the imported price.

C. F. Wu invented a scheme for making needle-eyes for weaving machines which cost 1/10th the price of those formerly imported from Japan at \$15 for 500.

In England, France, the United States, Germany and other highly industrialized countries cooperative production was thought of by Utopian socialists only in the 19th century after the Industrial Revolution and its evils had already won the field. In fact, such Utopians sometimes considered industry an evil in itself and

went in for pastoral Arcadian fancies which could not get beyond the Brook Farm stage. Cooperatives often became reformist in nature, contented themselves with taking over the duties of distribution for capitalist-produced goods. Early attempts at cooperative factories were destroyed by the powerful competition of mass production for profit, and the cooperators had not the courage or imagination to devise a mass production system for themselves. The public bought shares in capitalist companies instead. Inasmuch as centralized capitalist industry already existed, it was unscientific to break it down into less efficient units, so the Socialist and Communists decided on a plan to take over state control. It's no use to light pleasant pitch-pine fires under electric boilers. The great problem now before the Socialist theorist in capitalist countries is how to preserve or create the base for democratic control and liberty under state-controlled industry.

The problems of cooperative industry in China are not at all the same as in capitalist industrial countries, not even the same as those at the beginning of the European cooperative movement. This is because Chinese industry enters the world at a much later period, and Chinese capitalism has overpowering foreign rivals in the field already. It is more analogous to Czarist Russia, which had the largest cooperative movement in the world at that time and many industrial *artels* on cooperative lines, or to Scandinavia. There is a much greater chance for cooperative industry to compete with native private industry in China, particularly with the technological advance and electrical power, which it can take advantage of to improve production.

In China it is possible to reorganize and build new industry on cooperative lines and to get in on the ground-floor, so to speak. Production must come first as the fundamental basis for a cooperative system, then the cooperatives need not sell the goods produced by private competitors. Consumers' cooperatives in China, unless connected with Industrial Cooperatives, at the moment would serve only to spread Japanese goods at cheaper prices, for a boycott is not to be dreamed of unless the consumers' societies were dominated by the C.I.C. The British cooperatives have been a big help to Japanese industry by their purchases, for example. Where production is already developed, consumers' societies become important, but in China they should be preceded by cooperative industry to be of value to the cooperative system itself. As soon as the C.I.C. expands, it can take the leadership in developing and promoting true consumers' unions, as well as marketing and supply. For Chinese consumers' unions to start factories employing labor in a

For example, a Japanese enamel mug in Sian cost \$6.00 in 1940. These are carried by the soldiers, but Indusco could make tin cups or enamel mugs for from twenty to fifty cents apiece once the industry is developed. There is plenty of tin in the south. Chinese-made enamel mugs used to cost twenty cents apiece when the writer bought one in Sian in late 1937 during the war.

Cost of living has risen much higher in the Northwest than elsewhere, yet this is where Indusco is making its best profits and building its best base. Food for a Northwest C.I.C. worker cost \$8 a month in 1938; by 1939 it was \$12; and in July, 1940, had risen to \$22 for two meals a day.

According to a price index in Chengtu, local prices rose 126% within the year from March, 1939, to March, 1940; and 167% from 1937 to 1940. Part of the rise in foodstuffs is due to profiteering and hoarding by merchants, as well as to taxation. The price of rice in Chengtu rose 75% from 1937 to November, 1939, yet it was only \$35 a *tan* (three hundred weight) at that time, while it was \$52 in Chungking, only a few miles away, and \$104 in Kunming—the latter price was due largely to heavy consumption taxes.

Indices of retail prices in Chengtu made by the University of Nanking indicate that cost of living for workers went up 111% from the spring of 1937 to February, 1940—which is lower than for other classes of the population, the average being 132%.

At the other end of China, the extreme Southeast, Theodore Herman's report on the Kwangchowan C.I.C. depot dated March 9, 1940, states that prices were fantastically high, though this port is easily accessible to Japanese and Shanghai-made goods. A Shanghai-made cotton undershirt cost \$2.30, an enamelware basin \$2.50.

In March, 1939, Alley reported that a pair of dry cells for flashlights were brought in from the coast for \$1.40 to \$1.60, while the Indusco dry-cell cooperative was producing electric cells for twenty cents, by collecting and refilling old cells with new material. Entirely new cells made by Indusco cost a third of the imported price.

C. F. Wu invented a scheme for making needle-eyes for weaving machines which cost 1/10th the price of those formerly imported from Japan at \$15 for 500.

In England, France, the United States, Germany and other highly industrialized countries cooperative production was thought of by Utopian socialists only in the 19th century after the Industrial Revolution and its evils had already won the field. In fact, such Utopians sometimes considered industry an evil in itself and

went in for pastoral Arcadian fancies which could not get beyond the Brook Farm stage. Cooperatives often became reformist in nature, contented themselves with taking over the duties of distribution for capitalist-produced goods. Early attempts at cooperative factories were destroyed by the powerful competition of mass production for profit, and the cooperators had not the courage or imagination to devise a mass production system for themselves. The public bought shares in capitalist companies instead. Inasmuch as centralized capitalist industry already existed, it was unscientific to break it down into less efficient units, so the Socialist and Communists decided on a plan to take over state control. It's no use to light pleasant pitch-pine fires under electric boilers. The great problem now before the Socialist theorist in capitalist countries is how to preserve or create the base for democratic control and liberty under state-controlled industry.

The problems of cooperative industry in China are not at all the same as in capitalist industrial countries, not even the same as those at the beginning of the European cooperative movement. This is because Chinese industry enters the world at a much later period, and Chinese capitalism has overpowering foreign rivals in the field already. It is more analogous to Czarist Russia, which had the largest cooperative movement in the world at that time and many industrial *artels* on cooperative lines, or to Scandinavia. There is a much greater chance for cooperative industry to compete with native private industry in China, particularly with the technological advance and electrical power, which it can take advantage of to improve production.

In China it is possible to reorganize and build new industry on cooperative lines and to get in on the ground-floor, so to speak. Production must come first as the fundamental basis for a cooperative system, then the cooperatives need not sell the goods produced by private competitors. Consumers' cooperatives in China, unless connected with Industrial Cooperatives, at the moment would serve only to spread Japanese goods at cheaper prices, for a boycott is not to be dreamed of unless the consumers' societies were dominated by the C.I.C. The British cooperatives have been a big help to Japanese industry by their purchases, for example. Where production is already developed, consumers' societies become important, but in China they should be preceded by cooperative industry to be of value to the cooperative system itself. As soon as the C.I.C. expands, it can take the leadership in developing and promoting true consumers' unions, as well as marketing and supply. For Chinese consumers' unions to start factories employing labor in a

private capacity, as in England, would mean that the wealthy elements would control these as a sort of corporation, for the poor people in China cannot finance them. It would take hundreds of members putting in a few cents or dollars, and would be extremely difficult to organize. Consumers' unions are very successful in the Chinese Communist regions, however, because there are no wealthy gentry to exploit them.

The C.I.C. has been criticized by cooperators abroad as being a Government institution. This has been the essential of its growth, however, under Chinese conditions. Otherwise it could never develop as a movement, and perhaps could not even have built a small model center. It requires even more Government protection and sponsoring than has been given. There is plenty of opposition to it in Government circles and among provincial vested interests, to satisfy cooperative purists as to its democratic character.

In point of fact, however, the C.I.C. has grown by its own momentum. It is a popular people's movement. It was originated by non-Government volunteers and built by non-political engineers who never before held any Government post, except K. P. Liu. It has no obligation to any political party or clique, and is so far independent except as to its source of capital. This dependence cannot be avoided. The alternative is a void, under present conditions, until it can accumulate its own capital.

There is always a danger that it will fall into the hands of some bureaucracy or political clique or become dominated by banking interests, before it develops sufficiently to hold its own. This can only be avoided by more Government appropriations and by diversifying the source of banking investment. Most important would be a large American Government loan earmarked to encourage the healthy growth of the movement, and financial help and moral support from the international cooperative movement and democratic sympathizers abroad. This would disarm the reactionaries and encourage the progressives in China.

From the first days in Hankow there has been an underhand attempt to get control of the movement by two Government cliques, and to fit it into the jigsaw bureaucracy in control of economic development. This attempt is being intensified as the C.I.C. grows more powerful and gets more capital. Should either one or the other of these rival cliques get control, there would be the usual pulling and holding of Chinese politics. It has been able to develop so well thus far only because the leadership is independent of all political connections, and has extraordinarily good teamwork and cooperative spirit.

The fear has often been expressed that the C.I.C. will go the way of the rural cooperatives in China and become a corrupted bureaucracy. If it comes under the control of those who are responsible for this state of affairs, the tendency will be to turn it over for exploitation to the landlord and merchant interests in the provinces. The rural cooperatives are largely the instrument of such interests, and its leaders work closely with them. The C.I.C. is fundamentally sound, however, and only by changing its constitution and diverting its basic purposes, can it be wrecked by the control of such elements. It is not based upon a rotten semi-feudal under-structure, as the agricultural cooperatives are of necessity, but has built its own new foundations. Industrial cooperation can be, in fact, the salvation of rural cooperation in China. It is far the best thing that has ever been done in cooperation in any Eastern country.

Here is a splendid, healthy new movement in China—a test case for the present leadership. Such a movement is essential to China today, and there is no objective reason why it should not be given full support. If it is ruined and corrupted by selfish or stupid and short-sighted interests, this is proof that there is no hope for democratic transformation in China or future competent leadership of national affairs. We may look forward to civil war and chaos again—in my opinion, a totally unnecessary proceeding in view of the possibilities in the opposite direction. We may also blame Britain and America if this occurs, for they have the opportunity now to avoid it with merely an investment of a comparatively small amount of money.

There is not enough democracy in the present C.I.C. organization, but the important fact is that this is expanding and not retrogressing. Control from above so far has been paternal but not anti-democratic. The organizers have responsibility for directing and guiding the movement, and this always tends toward bureaucracy in China, but the members have their vote and are rapidly learning how to use it. They need education and training and more capital to strengthen the democratic base of the movement, but all the present leaders are genuinely trying to build true cooperatives and so long as they remain in power and so long as the members are able to use their vote, there will be a healthy, spontaneous improvement.

For the future, it is first of all necessary to get large amounts of capital quickly—in order to expand the movement; to increase the manufacture and purchase of machinery so as to mechanize industrial processes; to build up a good transportation system; and so

recruit all the available engineers, technicians, skilled labor, teachers, doctors, nurses and organizers. It is necessary to keep good cooperators in the leadership and to expand educational work among the members, as well as building new technical schools for quick training in industrial processes.

There has been a tendency among several foreign visitors unfamiliar with the larger historical problems of Chinese economics to underestimate the possibilities of this movement. Some even assume that it cannot compete with private Chinese industry in future. They recommend that it should not be too "ambitious"; that it should build only in small villages and give over the big cities freely to private interests; that it should concentrate on making farm tools and compost fertilizer; that it should not accept big army orders; that it should build cooperative schools first and industry afterward; that it must have a desperate struggle with powerful capitalist and industrial interests; that it should recognize its limitations and plan accordingly. They assume that it must be as limited historically as cooperative industry in England, for example; that China will go the way of European countries in the past. All these criticisms would be valid if one assumes a static unchanging China and a 19th century world. But we cannot disregard the whole complex of international economy in judging this movement, a complex which has made impossible the normal native capitalist industrial development of all backward countries, from China and the Philippines to South America. Chinese capitalism (which was actually merely a form of colonial economy) in the past has been unable to release the productive energies of the nation. Today it is far more limited, if indeed not destroyed by Japanese invasion—as was Japan's design. The Chinese Industrial Cooperatives are limited by many factors, but these limitations are far fewer than those confronting any other form of Chinese industry today. Large issues are at stake, and large measures will guarantee their success.

In my opinion the mere fact that cooperative industry was started by the Chinese Government and supported by the leading Chinese bankers, and that it has succeeded thus far, is proof of its validity. It would never have been started had there been a feasible alternative in sight. One need only compare the millions spent by the Government in coddling private industry with the return in productive value, to judge the soundness of the movement. Chinese bankers do not bring up these questions, I may add, they have had enough experience during and before the war to realize the difficulties of building big modern factories.

This form of industry must not be looked at as a few scattered workshops, but as a movement. It is a tensile chain of interconnected small industries, building up a whole system of marketing, supply and transportation. Therein lies its strength. As Dr. H. H. Kung remarked in a two-hour talk at the C.I.C. Conference in Chungking, July 7, 1940, while war planes droned overhead:

"The Chinese Industrial Cooperatives combine large-scale organization with small-scale workshops." He commented that the C.I.C. was "a fine example of China's genius for adapting herself to her conditions, and especially during these times of wanton destruction am I reminded of C.I.C.'s significance in the economic development of the nation." He then compared his anxiety, as head of the Central Bank of China, when reports were brought to him of the Bank's interests in several million dollar plants lying wide open to bombing, with his confidence in the cooperatives. "The Chinese Industrial Cooperatives are not merely a wartime organization," he went on, "they must use this time to build up their strength so that they will be able to make the transition to a more fully mechanized state after the war."

Small private competitive factories may have little future in China, but a network of *cooperative* production and distribution is in quite another category. This means mass production not under one roof, but through a single system of decentralized organization, which is far more efficient in view of the difficulties of transportation and the isolated market centers of China's provinces. One must look at *each C.I.C. center* as an aggregate of production. For example, the 150 cooperatives in and around the Northwest Headquarters town employ over 1,500 members and twice as many piece workers, producing in July over \$1,000,000 worth of goods monthly. This is a sizable industrial establishment. When one considers the possibility of building up the agricultural economy simultaneously as part of a vast system of cooperation, the potentialities become obvious.

It is the carefully considered opinion of Chinese industrial experts and of a number of American and British observers that the Industrial Cooperatives can provide not only the best but the most feasible form of industry for China in the future as at present. The opinion of Sir Robert Calder-Marshall, Chairman of the Shanghai British Chamber of Commerce, is indicative as stated in his annual official report to that body in 1940. He was quoted as saying that he "saw no reason why 'Free' China should not achieve self-sufficiency through the extension of the industrial cooperative movement. Lack of transportation facilities militated against the ful-

filment of larger plans, but the transportation of small plants such as those set up by the cooperatives presented no insuperable difficulty." He concluded that "These embryos of large plants must inevitably have a beneficial effect on the economic life of the country, opening up large areas that hitherto have been undeveloped."

One need only refer to the active American and British members of various promotion committees in five countries, to get a cross-section of disinterested opinion on the subject, remembering as well those who are giving so much of their time and energies to the field work in China, such as Rewi Alley, J. B. Tayler, Dr. Lewis S. C. Smythe, E. R. Lapwood, Charles Riggs and others.

As K. P. Liu stated recently, "The effect of the European War with the cutting off of imports from friendly nations has been to increase the importance of C.I.C. in resisting the Japanese economic offensive. It becomes more than ever important that China should achieve a large measure of self-sufficiency."

The coastal blockade of China, completed by the closure of the Burma Road, brings to the fore the vital importance of building up this industrial base in China. This added pressure may bring about the release of China's productive forces. With such a base being built, the loss of Hongkong and Shanghai will have no adverse effects on China. Indeed, this would result in releasing thousands of engineers, technicians and doctors for work in the building of a new nation in the interior, and break the deadlock which has prevented the migration of Chinese capital inland. China will be thrown back on her own resources and will be obliged to develop them to the full. Necessity is not only the mother of invention but of all great movements in the history of human change and progress.

In conclusion, I shall quote the opinion of the man who made the blueprint for this new democratic and constructive China. In a discussion with the writer in August, 1940, Rewi Alley said:

"The success of cooperative industry in China has already been demonstrated. Two years of experience have shown that the idea works, and works well. It is no longer an experiment but an accomplished fact. The C.I.C. is achieving something new in the history of cooperation. A unique opportunity exists in China that never before existed in any other country. Because of this, we can win where others have been defeated.

"The future of industrial cooperation in China will be tied in with consumers and rural cooperatives in a common program for the regeneration of agriculture and the building of modern indus-

try. The way is open. Our job is to organize the march forward. We need the full confidence of our friends; there is no place in the world today for faint-hearted fears and hesitation. We need the international support that cooperators and progressive men and women everywhere talk of and have never realized. China is taking the leadership in a new movement in the Far East that has possibilities for providing basic solutions to the problems out here. We look forward to a cooperative China working on terms of equality with a cooperative Japan, free of militarism. In the post-war world no country will be prosperous while its neighbor is starving and enslaved. Resources and technique must be developed everywhere and the benefits distributed equitably among the producers and consumers so that the mass of the people may reach a new level of civilization. To take one example, how easy it would be for a cooperative China to assist in settling the economic problems and age-old antagonisms between Chinese, Mongol, Tibetan and Mohammedan. We have only begun to point the way. The potentialities are endless. Cooperation in China is fighting in the front-line of the battle for human progress, and while this salient holds, democracy is winning a steady victory."

APPENDIX 1

MAP SHOWING CHINESE INDUSTRIAL COOPERATIVES HEADQUARTERS REGIONS

(Taken from C.I.C. publication "A Nation Rebuilds.")
Heavy dotted line shows Japanese lines of occupation
as of January, 1940: lighter dotted line indicates
the position in July, 1940.



X indicates the towns in which Headquarters are located. The
Front-Line and Guerrilla depots are indicated as "FL" and "G",
according to depot number.

APPENDIX 2

MODEL CONSTITUTION FOR C.I.C. SOCIETIES

1. *Name*

The name of the society shall be the.....
Guaranteed Liability Industrial Cooperative Society of.....
.....Hsien in.....Province.

2. *Address*

The address of the society shall be.....

3. *Objects*

The objects of the society shall be in accordance with cooperative principles. The objectives of the society shall be to carry on the following functions in accordance with cooperative principles, namely, membership open to all qualified workers to the maximum number justified by the economic condition of the business, one member one vote, limited interest on share capital and distribution of net earnings on the basis of a bonus on wages:§

- (1) To assist the members in the manufacture and sale of.....
- (2) To provide an organization to make possible the arrangement and execution of collective contracts for labor.
- (3) To arrange for the transportation of passengers or goods for hire.
- (4) To supply raw materials, machinery and tools and acquire such land and buildings as may be necessary therefor.
- (5) To make available the funds necessary for those purposes in accordance with this constitution.
- (6) To unite with other cooperative societies for the promotion of their common interests.

4. *Area*

The area of operations of the society shall be.....
.....
A branch may be formed under any society subject to approval by the local C.I.C. office.

5. *Liability*

The liability of each member for the debts of the society to non-members shall be a sum equal to.....times the nomi-

nal value of the shares to which he has subscribed. Such liability shall not be extinguished till two years have elapsed from the date of cessation of membership in terms of this Constitution.

6. *Value of Share*

The value of a share shall be N(.\$).....

7. *Membership Qualifications*

The qualifications for membership shall be :

- (1) Residence within the area of operations of the society.
- (2) Full members shall have attained 20 years of age, and junior members shall have attained 18 years of age.
- (3) Capacity to earn in the business of the society.
- (4) Honesty, good character, and freedom from bad habits, e.g., opium smoking, use of drugs, gambling etc.
- (5) Not bankrupt nor deprived of civil rights.
- (6) No one shall be eligible for membership who is already a member of any other registered Industrial Cooperative Society.

8. *Membership Classification*

A. Members shall be persons who join in the original application for membership, and persons duly elected in accordance with this constitution.

- (1) Full members shall have attained 20 years of age.
- (2) Junior members may be admitted at 18 years of age, provided they fulfil all other requirements of full members as listed in Article 7, and shall carry all responsibilities and rights of a full member excepting:
 - a. A junior member shall only carry responsibility for the debts of the society to outsiders to the extent of his paid-up capital.
 - b. A junior member shall not be allowed to vote in a General Meeting on a question of increasing the loans secured by the society.
 - c. A junior member shall not hold any office which involves the legal responsibility of the society.

B. Any non-profit seeking organization within the area of operations which is a legal person and has common needs within the objects of this constitution shall be eligible for election.

9. *Membership Admission and Share Holding*

- (1) Candidates for membership shall be introduced and guaranteed by two members of the Society who know the candidate, and shall be elected at a meeting of the Board of

directors by an affirmative vote of the majority of all its members, subject to approval by a majority vote at the next ensuing General Meeting.

- (2) Immediately after election every member shall subscribe at least one share and make at least the part payment prescribed by the law ($1/4$), *and the balance shall be paid within one year.* He shall not be entitled to vote or exercise any other privilege of membership until he has done so. Any member may subscribe for more shares from time to time. *But the number of shares for which a new member must subscribe for admission to membership shall not be increased above one share.*
- (3) The number of shares to be subscribed by an organizational member on admission and thereafter, shall be decided by the General Meeting of the Society.
- (4) The maximum share capital subscribed by any member shall not exceed 20 per cent of the total subscribed share capital of the Society.

10. *Membership may be lost by*

- (1) Loss of any of the qualifications set out in Article 7.
- (2) Ceasing to hold at least one share.
- (3) Insanity or death.
- (4) Resignation or expulsion in terms of this Constitution.

11. *Resignation*

A member may resign from the society at the end of any fiscal year of the society, provided that he is not indebted to the society and that he has given at least two month's notice in writing to the Board of Directors of his intention to resign.

12. *Transfer and Redemption of Shares*

- (1) No shares may be transferred either whole or in part, except upon loss of membership or when a member owns shares in excess of the number he is required to own by the Society's regulations; he may then transfer such part of these shares to other members of the Society as the Board of Directors approves.
- (2) A member resigning may transfer his share capital to any existing member or to any candidate for election approved by the Board of Directors.
 - a. In case the shares cannot be sold as above, the Society shall be bound to pay a resigning member the value of his share determined as set out in this Constitution, within one year of the date on which his resignation takes effect.

- b. When shares have been redeemed as above or when the total amounts credited upon any share have been repaid, that share shall thereupon become extinguished. If the number of shares so extinguished brings the total shares below that required by the Society's liability, as prescribed in Article 5, the Society shall either secure sufficient share subscriptions to meet the liability or arrange a protection satisfactory to the creditors.
- (3) The Society reserves the right to redeem shares at nominal value proportionately to shares held by each member in excess of the number required for membership at any time the financial condition of the Society so warrants, to the extent determined by a General Meeting.
 - (4) No transfer of shares shall be such as to increase the share holding of the transferee above one-fifth of the subscribed capital of the Society.
 - (5) No member shall use debts owed him by the Society for payment of shares excepting as provided for in Article 29, B.
 - (6) No member shall use his paid-up shares as substitute for his debt to the Society or to members; nor can he use his shares to secure debts.
 - (7) No member shall transfer his share while he is in debt to the Society.

13. *Expulsion*

- (1) A member may be expelled by a two-thirds majority vote at any General Meeting, if he is guilty of uncooperative conduct or conduct detrimental to the interests of the Society. The vote shall be by ballot. The Secretary shall send the expelled member a written notice of expulsion. The repayment of his share capital shall be governed by Article 12.
- (2) No expelled member shall be re-admitted except by a vote of two-thirds of the members present at a General Meeting and after notice of such vote on re-admission has been given seven days earlier to every member. Such an expelled member shall have satisfactorily eliminated the reasons for which he was expelled before being re-admitted to membership.

14. *Payment of Share Redemption to Executors*

In case of loss of membership under Article 10 by insanity, bankruptcy, loss of civil rights, or death, the share capital due to the former member shall be paid to his nominee or to any

guardian or official receiver appointed by a competent court. In such cases the payment shall be made as soon as possible and in no case shall it be postponed for over a year from the date of the loss of membership.

15. *Determination of Value of Share for Redemption*

The value of a share for the purposes of Articles 12 to 14 shall be decided by the Board of Directors after a valuation of the assets of the Society at the end of the previous financial year, provided that in no case shall it be more than the nominal value of the share.

16. *Financial Fiscal Year*

The financial year of the Society shall be from January 1st to December 31st.

17. *Nominee (Executor)*

Every member on joining the Society shall nominate in writing one person to whom his interest in the Society should be paid in case of his own death or incapacity. He may from time to time alter the name of his nominee by his own handwriting.

18. *Bound by Constitution*

Any member who joins the Society shall be deemed thereby to have agreed to be bound by this Constitution.

19. *General: Constitution and Call*

- (1) A General Meeting of the Society shall be held annually as soon as possible after the closing of the accounts for the previous year and in no case later than..... The Board of Directors may from time to time summon a General Meeting as may be necessary, and the Board of Supervisors may summon a General Meeting when necessary for criticizing the Board of Directors.
- (2) Not less than one-fifth of the members may at any time, by a written application stating the business to be transacted, call upon the Board of Directors to summon a General Meeting. If the Board of Directors fails to summon the meeting within ten days, the members may, after notice to the competent authority, summon it themselves.
- (3) The Chairman of the Board of Directors shall be Chairman of the General Meeting and in his absence the Chairman of the Board of Supervisors shall act as Chairman. In the absence of both of these officers, the General Meeting shall proceed to elect a Chairman for the meeting.
- (4) Not less than seven days' written notice of an annual General Meeting and one day's written notice for a special General

Meeting shall be given to all members.

- (5) Over half the total membership shall constitute a quorum. Any General Meeting may proceed to business if over half of the members are present within half an hour after the time fixed for the meeting; otherwise the meeting, if a special General Meeting convened on the request of the members, shall be dissolved, but if any ordinary General Meeting or a Special General Meeting convened by order of either the Board of Directors or the Board of Supervisors, may be adjourned to a date not less than one day nor more than seven days thereafter. If at the adjourned meeting there is not a quorum present, written notice of urgent business and intended action of the Board of Directors thereon may be sent to all the members with warning that failure of the members to reply in writing within the specified time will be taken as agreement. Not less than ten days shall be allowed for such reply. When such notice is sent, the local C.I.C. office shall be notified at the same time.
- (6) A majority vote of the members present is necessary for all actions excepting for dismissal of officers when a vote of half of all the members of the Society is necessary; in the cases of amendment of the Constitution, an affirmative vote of three-fourths of the members present at any General Meeting is required; for dissolution of the Society and amalgamation of the Society with another society, a vote of three-fourths of the total membership of the Society is necessary.
- (7) Each member shall have one and only one vote irrespective of the number of shares held by him, excepting in the case of the casting vote of the Chairman.
 - a. Any member who cannot attend may appoint any other member as representative, but this appointment must be given in writing to such representative before the meeting concerned and no member shall act as the representative of more than one member beside himself.
 - b. A member other than a natural person (organizational member) may vote through an agent designated in writing for the purpose. The number of votes to be cast by an organizational member (see Article 8, B) shall be decided by a General Meeting of this society.
- (8) Adjournment: Any general meeting, duly constituted, may adjourn to such place, at such time within thirty days as the members present direct, and may continue any such adjournment from time to time. No business shall be

brought up at any adjourned meeting which could not have been transacted at the original meeting, unless notice as prescribed under (4) above is given concerning such new business; and the same notice shall be given of any meeting adjourned for more than seven days as was required for the original meeting.

(9) The order of business as at annual meetings of members shall be:

- a. Roll call.
- b. Reading and approval (or correction) of the minutes of the last meeting.
- c. Report of the Directors.
- d. Report of the Treasurer.
- e. Report of the Board of Supervisors.
- f. Discussion and approval (or modification) of above three reports.
- g. Unfinished business.
- h. New business other than elections.
- i. Election of officers.
- j. Adjournment.

(10) Elections:

- a. At least 10 days prior to each annual meeting, the chairman of the Board of Directors shall appoint a nominating committee of three members to nominate at the annual meeting not more than one and a half times the number of vacancies for which elections are being held.
- b. After the nominations of the nominating committee have been placed before the members, the chairman shall call for nominations from the floor. When nominations are closed, tellers shall be appointed by the chairman, ballots shall be distributed, the vote shall be taken and tallied by the tellers, and the results announced. Those who receive the most votes shall be elected.
- c. Nominations and elections shall be in the following order:
 - (a) Nominations for directors.
 - (b) Election of directors.
 - (c) Nominations for board of supervisors.
 - (d) Election of board of supervisors.
- d. All elections shall be by ballot.
- e. Within ten days after their election, the names and addresses of all persons elected to offices shall be

forwarded to the local C.I.C. office by the Secretary of the Society.

20. General Meeting: Powers and Duties

The General Meeting shall have the following powers and duties:

- (1) To exercise supreme authority on behalf of the Society.
- (2) To elect the directors, supervisors, and officers of the Society. In case of vacancy occurring during the year, a special General Meeting shall be called to elect a person to finish the year, if there are alternates elected by the annual General Meeting they shall fill vacancies in order of highest number of votes received.
- (3) To determine the business policy of the Society.
- (4) To examine and, if approved, to accept the annual balance sheet, statement of income and expenditure, profit and loss account, inventory list, business report and plan for allocation of surplus prepared by the Board of Directors and duly audited by the Board of Supervisors.
- (5) To decide how any surplus available shall be allocated or decided upon.
- (6) To approve the election of new members and to expel members.
- (7) To fix limits within which the directors may borrow money or enter into contractual arrangements on behalf of the Society.
- (8) To make any necessary alterations in this constitution.
- (9) To fix all salaries and scales of wages to be paid by the Society to members and others for different classes of work. Such scale and terms and duration of employment of any non-member shall be subject to sanctions or revision by the Head Office of the Chinese Industrial Cooperatives.
- (10) To prescribe from time to time scales according to which the share holdings of members shall be increased.

21. Board of Directors: Constitution

- (1) The Board of Directors shall consist of.....members elected by the annual General Meeting. Any interim vacancy may be filled either by an alternate or by election by a Special General Meeting. Directors shall hold office for one year or until the next General Meeting after the expiry of one year. They shall be eligible for re-election.
- (2) No director may receive any remuneration from the Society but he may receive a refund of expenses actually

incurred on behalf of the Society in accordance with any scales approved by the General Meeting.

- (3) The Board of Directors shall meet at least once a month. Over half the members shall form a quorum. All action shall require a majority vote of members present.
- (4) The Board of Directors shall meet with the Board of Supervisors once in three months. Such meeting shall be called by the Chairman of the Board of Directors and shall require two-thirds of the combined membership to form a quorum and a majority vote of members present for any action.

22. *Board of Directors: Powers and Duties*

- (1) To elect from among themselves a Chairman who shall represent the Society in its dealing with non-members, a Secretary and, if necessary, an Assistant Secretary, and a Treasurer. The posts of Secretary and Treasurer shall never be held by the same person.
- (2) To carry on the business of the Society in accordance with the instructions of the General Meeting. The Chairman of the Board of Directors shall, subject to the provisions of Article 25 (2), be entitled to sign on behalf of the Society any agreement or contract which is within the limits set by the General Meeting of the Society. Such contract or agreement shall be countersigned by the Chairman of the Board of Supervisors.
- (3) If necessary the Board of Directors from time to time may appoint a general manager of the Society, who, in the conduct thereof, shall in all respects act under their superintendence, direction, and control, and have such remuneration, powers, and special duties, not inconsistent with this Constitution and other rules of the Society, for the due performance of which he shall give such security as they determine from time to time. The manager may not be Chairman of the Board of Directors nor a member of the Board of Supervisors. The manager may recommend other necessary employees to the Board of Directors for employment.
- (4) To admit new members subject to approval of the next General Meeting.
- (5) To contract loans on behalf of the Society, subject to the limits fixed by a General Meeting.
- (6) To appoint one or more sub-committees for any specific purpose within the scope of the business of the Board of Directors.

- (7) To hear the report of the manager and check the cash balance on hand at every monthly meeting of the Board of Directors, and at any other time they desire.
- (8) To prepare, at least ten days before the annual meeting, the budget, accounts, books, and reports including the Annual Balance Sheet, the Statement of Income and Expenditure, Profit and Loss Account, Inventory List, Business Report, and plan for division of surplus to be submitted to the annual General Meeting. *After these reports have been audited by the Board of Supervisors, they shall be made available for the members' inspection at least three days before the annual General Meeting.*
- (9) To appoint any member of the Society to represent it in any legal proceedings.
- (10) To appoint any member of the Society to represent it and vote on its behalf at any meeting of any other registered Society of which it is a member.
- (11) To decide by whom the various books of the Society shall be written.
- (12) To observe in all their actions the Cooperative Law, the regulations framed thereunder and this Constitution, and to maintain the prudence of good men of business.

23. *Board of Supervisors: Constitution, Powers and Duties*

- (1) The Board of Supervisors shall consist of.....members elected by the General Meeting and shall hold office for one year or till the next General Meeting after the expiry of one year. They shall be eligible for re-election.
- (2) No supervisor shall concurrently hold any other office under the Society, nor shall he receive any remuneration.
- (3) The Board of Supervisors shall meet at least once a month. Over half the members shall form a quorum. All actions shall require a majority vote of members present.
- (4) The duty of the Board of Supervisors shall be to exercise a general supervision over the work of the Directors and in particular to conduct an audit of the annual financial statements prepared by the Directors and to furnish a report thereon to be submitted to the General Meeting.
- (5) The Board of Supervisors shall have full authority to investigate all affairs of the Society, to report their findings to any General Meeting, to call a Special General Meeting at any time for such criticism of the Board of Directors as they are unable to correct in any other way, and to bring charges

for removal of a member of the Board of Directors before any General Meeting.

24. *Secretary*

The Secretary shall have the following powers and duties:

- (1) To maintain correctly and up-to-date the prescribed books and registers as follows:
 - a. Applications for membership.
 - b. Members' Register which shall contain: (a) member's name, sex, age, nativity, vocation, home address, names of guarantors, name and address of nominators; (b) number of shares subscribed by member, date of such subscription, original number of the shares, amount of shares paid, date of payment and amount of member's liability.
 - c. Minute books for General Meetings and meetings of the Board of Directors.
- (2) To sign on behalf of the Society, excepting as specified in Articles 22 (2), and to conduct its correspondence.
- (3) To send out notices of General Meetings and Meetings of the Board of Directors.
- (4) To report the minutes of such meetings and have them duly confirmed and signed by the Chairman of the next subsequent meeting.

25. *Treasurer*

- (1) The treasurer shall receive and pay out all sums authorized by the Board of Directors and keep account of the funds of the Society. He shall place such funds over NC\$...... in such bank as the Board of Directors may direct, which bank shall be approved by the local C.I.C. office, in the name of the Society.
- (2) The Chairman of the Board of Directors, or in his absence his appointee from members of the Board of Directors, and the Treasurer shall sign on behalf of the Society all withdrawals of money. In case the appointee of the chairman signs, the Chairman is responsible to the Society.
- (3) The Board of Directors may by resolution provide for the establishment and monthly replenishment of a petty cash fund of not exceeding NC\$......for use by the Treasurer.

26. *Books and Forms*

A. The following forms and books shall be kept by the Society.

- (1) Application for membership.
- (2) Forms for subscription for shares.

- (3) Binding Agreement.
 - (4) Member's Register.
 - (5) Minute Books.
 - (6) Cash Book.
 - (7) Ledger.
 - (8) Stock Ledger.
 - (9) Property Statement.
 - (10) Share Register, in which under the number of each share shall be entered the name of the member to whom it was originally allotted, or in whose name it is entered; and if the share is extinguished, the date of extinction.
 - (11) Share Ledger.
 - (12) Others as necessary.
- B. All books of account, securities, documents and papers of the Society, other than such (if any) as are directed by the Board of Directors to be kept elsewhere, shall be kept at the registered office of the Society in such manner and with such provisions for their security as the Board of Directors from time to time direct, and all books of account and other records of this Society shall at all times be available for examination or inspection by the directors and members of the Board of Supervisors of this Society and by any officers authorized by C.I.C. or the Union with which the Society is affiliated.
- C. Copies of all reports and the statements of accounts submitted to any General Meeting shall thereafter be available for examination or inspection by any member of the Society.
- D. Copies of the organization papers of this Society, its constitution, and any amendment thereto, returns of nominations and elections, proceedings of all regular and special meetings of the members, and the names of the directors and the board of supervisors shall be recorded in the minute books of this Society. The minutes of the meetings of the members, the board of directors, the board of supervisors, and the committees shall be signed by their respective chairman or presiding officers and the persons who serve as secretaries of such meetings.
27. *Subject to Factory Act*
All the operations of the Society shall be subject to the requirements of the Factory Act No.....of.....
28. *Binding Agreement*
Every member on joining the society shall execute an agreement in writing binding himself to sell through the Society all goods manufactured wholly or partly by him on the

Society's premises or with materials or equipment supplied by the society, or in default of such sale to pay a sum of NC\$per.....as liquidated damages, excepting such goods as the Society rejects, or permits them to sell individually.

29. *Division of Surplus*

- A. To ascertain the annual surplus, first, interest on loans shall be deducted, then depreciation of the assets of the Society at a rate to be decided by the Board of Directors, but in no case less than 20 per cent on equipment and 10 per cent on buildings; then any accumulated loss brought forward from the previous year; then such allocation to a share transfer fund as the Annual General Meeting may have decided, sufficient to maintain the fund at a level of at least 5 per cent of the paid-up share capital for the time being; then from the remaining proceeds a dividend on paid-up share capital not exceeding 10 per cent per annum or the rate of interest paid for current long-term loans, whichever is lower, and shall be non-cumulative. This shall be done in the annual accounts as prepared by the Board of Directors and audited by the Board of Supervisors.
- B. The remainder shall be treated as net surplus. Of this: First, a sum decided by the Annual General Meeting, in no case less than 20 per cent, shall be allocated to the General Reserve Fund. Second, at least ten per cent to a Common Goods Fund to be used as the Annual General Meeting shall decide. Third, ten per cent to the Directors and Staff, to be divided as decided by the Annual General Meeting. Fourth, ten per cent shall be paid into a local Industrial Development Fund administered by a joint committee of the local general union and the local C.I.C. office. Fifth, the balance shall be distributed among the members and non-member workers in proportion to the wages earned from the Society during the year subject to the following conditions:
 - a. Two-fifths of the sum due to any member as bonus on wages instead of being paid to him directly shall be credited by way of increase of his paid-up share capital in the Society until the total paid-up share capital and reserves of the Society shall form one half of the Society's total capital. The remaining balance of the bonus shall be given him in cash.
 - b. A bonus on wages on the same scale shall be paid to all non-member workers subject to the following conditions:

- (a) Any non-member worker under the age of 18 shall be paid his bonus in cash.
- (b) If within three months after the date of the Annual General Meeting any non-member worker of 18 years of age or over:
 - (1) Applies for membership and is admitted, he shall draw his bonus on the same terms as any other member.
 - (2) Applies for membership and is refused admission, he shall draw the same proportion of his bonus in cash as does a member. The balance shall be paid into the local Industrial Development Fund.
 - (3) Does not apply for membership, he shall forfeit his right to the bonus, and the sum otherwise due him shall be carried to the General Reserve Fund.
- (c) No individual who receives a bonus as Director of Staff under "B-Third" above shall participate in the bonus on wages for the same work.

30. *Handling of Loss*

In case the process for determining a surplus defined in Article 29, A, shows a loss, such deficit shall be handled as follows:

- (1) No dividends shall be paid on shares.
- (2) No allocation shall be made to the Share Transfer Fund and any funds in the Share Transfer Fund shall be used to offset the loss.
- (3) No reduction shall be made in the year's allowance for depreciation either on buildings or on equipment.
- (4) Interest on loans shall be arranged to be paid when due.
- (5) Any remaining loss shall be charged to the following accounts in the prescribed order:
 - a. General Reserve Fund.
 - b. Share Capital Account and, if this is not sufficient to cover the loss, the members shall be called upon to pay up the unpaid balances on subscribed shares prorated according to proportion of the total unpaid balances on subscribed shares necessary to cover the loss.
 - c. Member's guaranteed liability prorated according to proportion needed to cover remainder of the loss.

31. General Reserve Fund

The General Reserve Fund shall be put in such reliable financial organization as the Board of Directors may direct with the approval of the local C.I.C. office and shall be used only for handling a loss as described in Article 30.

32. Disqualification

- (1) No director, member of the Board of Supervisors, officer, agent, or employee of this Society shall in any manner, directly or indirectly, participate in the deliberation upon, or the determination of, any question affecting his private pecuniary interest or the pecuniary interest of any corporation, partnership, or association (other than this society or union to which it may belong) in which he is directly or indirectly interested.
- (2) In the event of the disqualification of any director respecting any matter presented to the Board of Directors for deliberation or determination, such director, after stating his case, shall withdraw from the meeting during such deliberation or determination. In such event, the remaining qualified directors present at the meeting, if constituting a quorum, may act in regard to the matter in connection with which such disqualification exists. If this withdrawal reduces the number present below that required for a quorum, the remaining qualified directors shall restore the quorum by summoning other absent directors to this meeting, or take up the matter at a subsequent meeting at which there is a quorum without the disqualified directors. If it is impossible to get a quorum without the disqualified directors, the matter shall be referred to at a special General Meeting.
- (3) In the event of the disqualification of any member, officer, agent, or employee of this Society at any General Meeting of the Society, after stating his case, he shall withdraw from the meeting during such deliberation or determination. If the remaining members present at the meeting constitute a quorum, they may act with regard to the matter in connection with which such disqualification exists. If they do not constitute a quorum, they may either call in absent members to this meeting or take up the matter in question at a subsequent meeting in which there is a quorum without the disqualified members.

33. Complaints, Suggestions and Dismissals

- (1) A member or employee who has any complaint or suggestion, shall send it (if possible in writing) to the Manager or Board of Directors.

- (2) Any dismissal or suspension of workers, whether members or not, shall first be referred to by the Manager to the Board of Directors for decision which shall be final.

34. *Other Regulations*

Any other regulations which are not in this Constitution shall agree with regulations on cooperative societies proclaimed by the National Government.

35. *Amendment*

Amendments to this Constitution may be adopted by the affirmative vote of three-fourths of the members present at any duly-held General Meeting thereof, if the notice of such meeting has contained a copy of the proposed amendment or amendments; but no amendment to this Constitution shall become effective unless approved in writing by C.I.C. General Headquarters or their authorized representative.

36. *Dissolution*

The Society may be voluntarily dissolved by a document of dissolution signed by three-fourths of the members for the time being and in the form and manner required by the proper local authority.

APPENDIX 3

TABLES SHOWING DISTRIBUTION OF COOPERATIVE INDUSTRIES IN THE NORTHWEST HEADQUARTERS AS OF SEPTEMBER, 1939*

		No. of Socie- ties	No. of Mem- bers	No. of Shares	Amount of Share Capital	Amount of Loans	Amount Repaid
Shensi	..	203	2,800	8,918	\$96,556	\$683,420	\$35,339
			(C.I.C. Union Marketing Store)			100,000	
Kansu	..	94	770	2,078	20,642	256,860	2,350
Honan	..	54	661	1,185	15,640	25,800	
Shansi	..	4	38	83	390		
Hupeh	..	2	39	104	208		
Totals	..	357	4,308	12,368	133,436	1,066,080	37,689

Industries	Societies	Percent	Members	Shares	Share Capital
Spinning & weaving	164	45.9	2,124	4,061	\$35,949
Leather	17	4.7	147	564	5,331
Metal work	17	4.7	170	469	5,457
Mining	17	4.7	420	737	1,926
Chemicals	29	8.1	253	625	7,081
Foodstuffs	42	11.7	414	3,577	62,760
Printing & paper ..	9	2.5	77	223	1,745
Miscellaneous ..	62	17.7	703	2,112	13,187
	357	100.0	4,308	12,368	133,436

* From Northwest Headquarters Report, September, 1939.

APPENDIX 4

STATISTICS ON GROWTH AND BALANCE SHEETS OF INDIVIDUAL COOPERATIVES IN CHENG TU SZECHUAN,* JUNE, 1940

This depot was set up under D. D. Su on February 1, 1939. By the end of April there were 24 cooperatives. During 1940 no new cooperatives have been formed, though plans exist which will be put into effect as soon as capital becomes available.

Statistics. Figures showing the growth of work in Chengtu and its present condition are given below:

Month	No. of socs.	No. of memb.	Amount of Subsc. sh. cap.	Amount of Pdup Sb. cap.	Amount of Loan Outst.	Amount of Loan Repaid	Value of Prodn. of Month
1939							
3	10	91	\$ 1,810	\$ 531			
4	19	202	3,475	1,873	\$ 17,925		\$ 11,422
5	20	208	4,975	3,374	50,645		21,200
6	22	227	8,775	3,799	76,585		25,372
7	49	443	10,985	4,340	102,765		69,807
8	49	446	10,985	4,349	119,435	\$ 150	91,196
9	51	471	11,135	4,383	118,485	12,300	112,785
10	51	485	11,135	4,383	118,638	12,300	124,640
11	51	493	11,485	4,399	237,135	12,300	152,951
12	51	500	11,925	4,587	233,930	22,305	223,398
1940							
1	51	500	11,925	4,587	240,470	22,305	292,593
2	51	500	16,470	6,659	169,420	103,055	264,050
3	51	500	17,470	6,959	227,230	123,055	265,529
4	51	516	17,470	7,040	247,200	153,085	179,554

Statistics for production according to trade:

* This section is taken from a report by E. Ralph Lapwood.

Trade	Weaving socks	Cotton	Silk	Shoe cloth	Lea- ther	Tailor- ing	Blankets
1939							
4	\$ 255	\$ 10,312		\$ 575		\$ 73	
5	592	11,772	\$261	1,850	\$ 278	1,311	
6	338	12,362	379	3,195	1,020	1,085	
7	252	54,668	151	1,321	870	1,034	\$ 6,804
8	561	53,084	274	2,315	1,008	1,562	24,108
9	492	47,154	168	3,726	775	6,404	45,348
10	479	42,456	148	4,523	1,892	5,979	49,044
11	182	30,396	319	3,330	1,340	7,862	79,248
12	745	30,394	369	4,267	1,490	2,586	157,584

1940							
1	997	48,293	418	2,816	1,137	1,503	209,988
2	99	48,293	85	3,500	1,362	945	182,304
3	380	48,293	1,071	4,983	1,162	3,073	167,940

Trade	Printing	Meden	Machine	Tobacco	Dyeing	Total
1939						
4				\$ 159	\$ 47	\$ 11,421
5	\$ 4,278			604	253	21,199
6	1,468	\$ 4,961		383	181	25,372
7	458	1,214	\$2,800	136	99	69,807
8	1,100	1,091	5,600	379	114	91,196
9	2,320	253	5,600	434	111	112,785
10	7,139	3,589	6,853	442	2,095	124,639
11	5,383	549	8,710	49	15,483	152,851
12	3,268	18,268	10,047	108	10,712	239,838

1940						
1	668	2,774	5,178		18,821	292,593
2	1,504	2,355	780		22,823	264,050
3	12,986	9,515	5,400		10,726	265,529

Other statistics: 16.5.40

Number of women members	50
" " men	466
" " apprentices	198
Total number of workers	5,796

Total loan April 1939—April 1940	Long term	\$ 54,975
	Short "	345,310
	Total	\$400,285
Loans outstanding April 30, 1940	Long term	\$ 52,440
	Short "	194,760
	Total	\$247,200

Part from Bank of China
Number of blankets produced by the end of April: 75,000

INDIVIDUAL COOPERATIVES:

I. *Machine Cooperative.* (Described in section on Finances.)

II. *Printing Cooperative.* Established 15.4.39, 50 members, all local men. Chairman elected for 3(!) years and other officers for one. After the fire it was decided to ask the officers to stay on, and not to call an immediate meeting, so there has been up to now no reelection.

This co-op had a troubled history. There was great difficulty in getting a manager of sufficient experience to run such a big factory and some of the members were undesirable men who wanted to exploit the hired workers. Then at the end of 1939 the building burned down with losses of paper and type. Now at last, however, the business seems to be gaining momentum.

At present there are 33 hired men, all of whom will have the option of becoming members later. There are 53 apprentices. Of the 50 members 22 seem to be away for an indefinite period and do not figure on the wage list.

Share capital is \$7,000 of which \$2,125 has been paid up.

Total loan is \$74,000.

The society operates in a building loaned freely by a sympathizer. Its assets in furniture were originally valued at \$14,650, and in machinery \$13,493. Their value now is doubtless much more.

Business:		Cost of production	Sales
		(not including cost of sales, etc.)	
1940	Jan.	\$1,488	\$ 939
	Feb.	3,058	3,504
	Mar.	8,831	12,986
	Apr.	3,283	7,708
<i>Wages:</i> (i) time (a) officers: $3 \times \$50$, $3 \times \$40$, $6 \times \$35$, $1 \times \$23$, Av. \$38 (11 members)			
	(b) other members: $5 \times \$25$, $3 \times \$20$, Av. \$23		
	(c) apprentices: $8 \times \$3$, $16 \times \$2$, $29 \times \$1.20$, Av. \$1.70		
	(d) hired men: $1 \times \$40$, $2 \times \$20$, $8 \times \$25$, Av. \$29.		
	(ii) piece work (a) Members: \$37, \$29, \$26, \$23, \$38, \$17, \$16, \$10, \$8, Av. \$20.		
	(b) Hired men: \$27, \$32, \$29, \$29, \$29, \$28, \$21, \$19, \$17, \$16, Av. \$26.		

Apprentices get a small bonus for higher output, and their food.

Hours of working: Summer: 7 a.m.—12, 1 p.m.—6 p.m.

Winter: 7½ —12, 1 —5

All workers have a weekly two hour class in Cooperative Principles.

All are literate, including apprentices, having at least Primary Education.

This cooperative has presented so many problems, but has such possibilities on account of its size and the standard of education. It is skilled in printing, and the co-op is steadily improving. The deficiencies that show in the above report are well known to the C.I.C. staff who are steadily remedying them.

III. *Y.W.C.A. Sewing Cooperative*. Started 9.9.39 with 10 members. Now 17 members and 4 preparatory members.

Share capital \$85, (paid up \$75), Loan \$1,000 for one year.

Production:	Feb.	\$1,260
	Mar.	2,533
	Apr.	1,320

Profit up to end of Mar. \$1,500 approx. not yet divided.

Wages: Foreman: \$16; second grade workers, \$14; third grade workers, \$13; preparatory members, \$11.

Education: Class each evening 7—9 p.m. Arithmetic, Cooperative Principles, Chinese, Discussion of work technique, Drama.

10 minutes' morning exercise each day.

IV. *Cloth Shoe Makers*. 9 members, 4 hired workers, 14 apprentices.

Subscribed share capital \$700, of which \$350 is paid up.

Loan from C.I.C. \$2,300 repaid, from Bank of China \$6,000.

Production:	1940	Feb.	\$3,500
		Mar.	4,982
		Apr.	7,880

Wages according to piece work: highest \$60-70, lowest \$30-40.

Apprentices given food and living and \$2 per month.

Workers attend one class per week (2 hrs.) in Cooperative Principles.

V. *Stocking Makers*. 7 members, 3 apprentices, 1 hired worker, 7 knitting machines, Subscribed Share capital \$350, already paid up \$250.

Loan \$4,000 short term from Bank of China, \$725 plus interest already repaid to C.I.C.

Production:	1940	Jan.	\$1,750
		Feb.	1,200
		Mar.	1,000
		Apr.	1,400

Now there are \$2,300 worth of stockings in stock. The skilled workers have gone out to sell them on the streets. A joint marketing store could eliminate such uneconomic procedure.

Wages: Members, \$10 plus food; hired worker, \$5 plus food, apprentices \$2 plus food.

Education: One man took the 8-day training course given by the office and a weekly class is being planned.

APPENDIX 5

WAGES IN THE NORTHWEST HEADQUARTERS OF THE CHINESE INDUSTRIAL COOPERATIVES

The following table shows the general monthly wage scale in the Northwest C.I.C. Headquarters as of November, 1939. It is not a complete survey.

Society	Mem- bers	Em- ployees	Number of	Women working at home		Wages of Members in dollars		Is food provided?	Wages of hired men	Re- Apprentices marks	
				Appren- tices	rates	Max.	Min. Aver.				
Men's											
Textile											
1	..	8	1	5	40	\$40	\$28	\$33	yes	—	
2	..	7	1	3	?	28	25	27	"	\$30 no food. 48 cts. -30 cts. per catty	\$6&\$8 with food
3	..	7	4	3	10	20	20	20	"	40 cts. per day 48 cts. per catty	*1
4	..	7	..	2		30	10	18	yes (\$12)	..	\$5 with food
5	..	8	1	3		30	30	30	no	..	\$2, " "
6	..	8	2	5	?	30	20	25	"	\$15-\$18	"
7	..	7	2		30	40	18	25	"	"	\$3 with food
8	..	7	?			17	13	15	yes	"	\$3 " "
9	..	7	4	7		12	12	12	yes (1 at \$30 3 at \$15)	"	\$3 " "

Women's Textile											
1	11	80	16	15	15.5	no					
2	19	60	17	12	15	?					
3	9	50									
4	11	40	16	15	15.5	?					
Dyers	7		10	10	10	yes					
Tanners	1		40		16.9	"			\$11		
Leather workers	7		28	15	20	"			\$18		\$5
Shoe workers	7		9		7.5	"			(piece rates various)		
Fur dressers	14		30	30	30	"			"		
Tailors	7		30	24	26	?					
Builders	7		30	30	30	no					
Flour millers	7		12	9	10	yes					
Brick makers	7		24	24	24	"			\$4 per 1,000		‡3
Soap makers	7		30	25	27	"			(av. 4-500)		
Printers	7		20	15	17	?			\$4-5-6		

Piece rates for hired women workers were 48 cents per *catty* for those making finer yarn on treadle wheels, and 40 cents per *catty* for coarser yarn with older-type wheel. One cooperative paid only 35 cents per *catty* for coarse yarn.

*1. Max. wage that of highly skilled foreman. The weavers receive bonus of 10 cents per blanket on output of more than 3 per day. The hired workers get a bonus on more than 100 blankets per month.

‡2. The hired workers are all skilled men who did not care to join the society.

‡3. *i.e.*, daily earnings of \$1.60, \$2.00. These are all highly skilled.

Comparative local wages for private industry were as follows:

Carpenter	<i>November, 1939</i>	<i>July, 1939</i>
Brick setters	\$1 with a meal, \$1.50 without	\$0.60 and \$1 respectively
Shoe-makers	„	„
Iron workers	„	„
Carpet makers:	\$15-25 per month with food (most from Sian)	
	\$120-150 per annum with food	
	Long term 80 cts. per day, short term 60 cts. per day.	
	Piece rates rose from 80 cts. per square foot in July to \$1.50 in November.	
Match making	Men \$15-20 with food; women make average earnings (at piece rates) of 30 cts.-40 cts. per day.	

APPENDIX 6

DISTRIBUTION OF INDUSTRIES OF THE CHINESE INDUSTRIAL COOPERATIVES MAY, 1940

<i>Type of Industry</i>				<i>Headquarters*</i>					Total
TEXTILES:				SE	SW	NW	SS	Y	
Cotton spinning and weaving	..			2		69	53	1	125
Cotton weaving	..	..	..	7	50	32	59	9	157
Cotton spinning	..	..	..	1	41	3	4		48
Linen weaving	..	..	..	5		4	32		41
Silk weaving	..	..	..			37	14	2	53
Wool weaving	..	..	..			12	5		17
Towels	..	..	..	3		5	5		13
Knitting wool	..	..	..			1			1
Wool spinning	..	..	..				5		5
Rugs	..	..	..	2		1			3
Wool tailoring	..	..	..			1			1
Socks	..	..	..	3	5	9	17	1	35
Singlets	..	..	..	4	4		5	1	14
Ribbons	..	..	..		2				2
Dyeing weaving	..	..	..	4	6	16	61	1	88
Bleaching and dyeing	..	..	..	2		4	1		7
Embroidery	..	..	..				1		1
				33	108	194	262	15	611
ENGINEERING:									
Machine shops	..	..	..	4	1	7	6		18
Casting	..	..	..	7	1	6	6		20
Textile machinery	..	..	..	2		2	2		6
Copper utensils	..	..	..			1	6	1	8
Metal smith	..	..	..		2		1		3
				13	4	16	21	1	55

* The given Headquarters are: Southeast, Southwest, Northwest, Szechuan-Sikong and Yunnan.

Type of Industry	Headquarters					Total
	SE	SW	NW	SS	Y	
MINING:						
Grinding				1		1
Wrought iron			1			1
Iron pots		7				7
Iron mines		1				1
Coal mines				4		4
Tin mining		2	4	15		21
Tungsten		2				2
Goldwashing		2				2
Sulphur		16	44	6		66
	30		49	26		105
CHEMICALS:						
Paper	21	2	8	18		49
Sugar refining	2					2
Chinese medicines			1			1
Candles and soap	6	2	9	7	3	27
Printing ink			2	1		3
Paints			2	1		3
Alcohol	1		3	1	1	6
Resin					1	1
Chemical implements	2	5	3			8
Hygiene instruments			3			3
Western medicines				5		5
Sulphuric acid				1		1
Soda				1		1
Tung oil pressing	15	10	23	18		66
Gasoline substitute				3		3
Tanning	5	4	15	7	2	33
Electric dry cells	1	2		1		4
Matches		1				1
Leather goods				1		1
	53	26	69	65	7	218
POTTERY:						
Porcelain	6	1	1			8
Pottery	2	1	2	2		7
Glass	1	1	2	3		7
Brick and tiles	18	4	11	9	2	44
Lime	3		1			4
Firebricks			1			1
	30	7	18	14	2	71

Type of Industry	Headquarters					Total
	SE	SW	NW	SS	Y	
FOODSTUFFS:						
Biscuits	6		3			9
Flour	6	2	22	8	2	40
Rice hulling	14	1	3			18
Candy			1			1
Sauce	1		1			2
Wine	2					2
Pickled vegetables				2		2
Tinned food				1	1	2
Salt				1		1
Salted meat	6					6
Noodles				3		3
Beancurd	1					1
Bean vermicelli	1					1
	—	—	—	—	—	—
	37	3	30	13	3	88
TRANSPORT:						
Boatbuilding	3			1		4
Transportation		1	4			5
	—	—	—	—	—	—
	3	1	4	1		9
MISCELLANEOUS:						
Printing	8	5	8	8	1	30
Pens and ink	2	2	1	1		6
Scales	1					1
Rattan furniture	5			5	1	11
Carpentry	16	3	7	2	1	36
Building	3	4	6			13
Charcoal	5		3			8
Cigarettes	4	3	7	10		24
Umbrellas	8	3				11
Woodfelling	2		5	1		8
Ginning	2	2	3			7
Oil jars	2			3		5
Toothbrushes	1	2				3
Mosquito nets	2					2
Rope	1		1			2
Dyeing paper	3					3
Oil paper	2					2
Surgical cotton gauze	1		2	2		5
Cloth shoes	4	7	18	7		36
Oil lamps		1	2			3
Oil cloth			1	1		2

<i>Type of Industry</i>	<i>Headquarters</i>					Total
	SE	SW	NW	SS	Y	
Bristles				3		3
Safes				1		1
Cotton threads				2		2
Silk threads			1			1
Gunpowder				1		1
Carding		1				1
Woodsawing		1				1
Uniform making	23	14	24	14	3	78
Straw shoes	10	2	1	3		16
Leather shoes	4	1	3	6	1	15
Buttons	1		2			3
Hats			1	1	2	4
Drycleaning		1				1
Mats		1	1			2
Chalk		1	1			2
Treebark suitcases			1			1
Leather		6	1			7
Cowhair			3			3
Bone utensils			1			1
Leather trunks			1	1		2
Joint stores			2			2
	<hr/> 72	<hr/> 60	<hr/> 107	<hr/> 79	<hr/> 9	<hr/> 365

APPENDIX 7

REPORT OF THE YENAN C.I.C. OFFICE

I. PREFACE

Since the establishment of the office on April 16 of this year,* based on the needs of the prolonged war of resistance and on the principle of developing handicraft industries in order to strengthen the war of resistance, and in order to secure final victory and the liberation of the Chinese people, the committee members of the C.I.C. have been working enthusiastically explaining to the people the significance and the necessity of the Chinese Industrial Cooperative movement. With the help of the Shensi-Kansu-Ninghsia Border Government the Construction Department of the Border Region, the Bank of the Border Region, and the Institute of Natural Science of the Border Region, the C.I.C. office managed to organize fifteen branches within the short period of five months, loaning out a capital of twenty thousand Chinese dollars. Recently, merchants and craftsmen applied at our office one after another, all willing to set up new C.I.C. enterprises or to reorganize their original workshops and factories. Had it not been for the lack of capital, the development of the C.I.C. work would have been much more prosperous.

In the Border Region of Shensi-Kansu-Ninghsia there are rich deposits of petroleum, salt, coal and iron. Hides, agricultural products and medicinal herbs are also abundant. But, owing to the inconvenience of communications, the comparative scarcity of the population and geographical difficulties, the handicraft industry and production could not have their due development. But since the outbreak of the war of resistance, conditions have changed. There is an ever-increasing demand for production and therefore the handicraft industries and production have also developed and expanded. Therefore the C.I.C. movement is very suitable as an organization for production in the Border Region. That is why it has developed very quickly and achieved good results in the Region.

The products of various C.I.C. organizations cannot yet meet the demands of the market. In order to increase the production for the material needs of the war of resistance, to improve the people's livelihood, in order to lay the foundation of a new country, our major work hereafter is to expand the production on the basis of cooperatives

by organizing the original handicraft industries and improving the quality. Then it is necessary to develop the weaving industry of cotton and wool, excavate the natural resources such as salt, coal, medicinal herbs, lumbering. Then it is necessary to manufacture the daily accessories for the needs of the troops and the people. Then the manufacture of tools for the development of the C.I.C. industries in order to guarantee the development and progress of the movement. Besides these, many other works in connection with the C.I.C. movement have to be undertaken, such as the training class for accountants, holding exhibitions, etc. Of course to accomplish all this work we have to meet with many material and technical difficulties and obstacles, but under the guidance of the C.I.C. headquarters in the Northwest and with the help of people of various professions we determinedly march toward this end.

II. GENERAL OUTLINE OF ORGANIZATION

(A) The classification of the C.I.C. units. The characteristics of the C.I.C. enterprises organized during the last five months are as follows:

1. Metal C.I.C.: Yenan Lamp C.I.C.
2. Weaving industry: three women's weaving C.I.C. at Yenchang, Kulin, and Ansai respectively. Unity Wool-weaving C.I.C. at Ansai. Lishenghsiang dyeing and weaving C.I.C. at Yenan.
3. Clothing industry: Shoemaking C.I.C. at Yenan. Bedding C.I.C. at Yenan.
4. Cultural industry: Chinhua paper making C.I.C. at Ansai.
5. Chemical industry: Chinhua chemical C.I.C. at Yenan. Kwenghua medicinal manufacturing C.I.C. at Pao-an.
6. Food industry: Flour mill C.I.C. at Yenan. Oil press C.I.C. at Yenan.
7. Carpentry and masonry industry: Pottery and porcelain C.I.C. at Yenan.
8. Transport industry: Transport C.I.C. at Yenan.

(B) Condition and prospects of all the C.I.C. organizations.

1. Lamp C.I.C.:—There are seven members in this office which has a capital of \$1,000, with a short term loan of \$1,500. Its chief products are lamp fuel made of vegetable oil. It also produces copper and iron tools or implements for military purposes, and other implements made of iron. Since the beginning of the war of resistance petroleum has been very scarce and its price soared. At present there is an absolute shortage of this fuel. But so far as lighting is concerned, plant oil replaces petroleum. However, the old-fashioned lamps can only produce a very weak light and are dirty and uneconomical. So the new lamps manufactured by the C.I.C. are well accepted by the public. People here generally use castor-oil which is very dense and deposits a scum on the wick. To solve this difficulty the C.I.C. refines the oil. So far as the business end is concerned, at

the very beginning the income could only cover the expenses, but now, after improvement both technically and in the management, there has been a sign of steady financial improvement.

2. Weaving C.I.C. at Yenchang, Kulin and Ansai. There are 74 members in the above-mentioned Cooperatives. The capital of shares has reached the sum of \$7,945, with a loan of \$3,000. The chief product is cotton cloth. As the Border Region is geographically mountainous, the peasants are not used to planting cotton, and as bedding is indispensable for daily life the demand for cotton is very urgent. But in areas in Yenchang, a sufficient amount of cotton is produced. With the import of cotton from Hancheng, the three C.I.C.'s can go on manufacturing cloth. Yet the products still cannot fill all the orders. If the problem of supplying raw cotton is solved, the industry will have a brilliant future.

3. Unity wool-weaving C.I.C. at Ansai. This has 20 members: the capital of shares is \$2,200 with a loan of \$1,500. The Border Region has been a herding region in our country; the wool it produced amounts to five million catties annually. Its quality is soft and smooth. Woolen cloth, blankets, woolen stockings and hats can be made of this material. But the local peasants used to weave the wool by hand, producing woven woolen clothing, blankets and so on. The C.I.C. adapted this handicraft method, so that production can be expanded within a short period. It now produces various kinds of woolen cloth and stuff of mixed cotton and wool. After all, the weaving industry has a great future in the Border Region and indeed it is concerned with the herding economy.

4. Lishenghsiang dyeing and weaving cooperative at Yen-an:—This C.I.C. was reorganized out of a small dyeing workshop. It has a membership of seven and a capital of \$1,600, with a short-term loan of \$1,000. The dyeing technique of this C.I.C. is the best in Yen-an. Besides the chance work, it can dye eight bolts of cloth. There is a great prospect for this industry, but recently the price of the dyes rose very high and this really constitutes a difficulty.

5. Shoemaking C.I.C. at Yen-an:—This has 37 members, most of whom are unemployed workers. It has a capital of \$200, with both long and short-term loans of \$1,200. It can produce 800 pairs of shoes every month. Its products are long-wearing and are well accepted by the public. But the rising prices of raw material now become a difficult problem.

6. Bedding-making industry at Yen-an:—This has 35 members, and a capital of \$1,000, with both long and short-term loans of \$1,200. As a result of lack of current capital, it cannot afford to provide raw material for itself. It only engages in work to make bedding for customers, on order. The income can just cover the expenses. Its site was originally located at Yen-an, but, owing to the war situation, it is removed to the Chingshih cave at Pao-an.

7. Chinhua paper-making industry at Ansai:—This has 25

members, a capital of \$2,500, with long and short-term loans of \$4,000. As paper concerns the cultural development of the people, it is needed at any place and any time. Owing to the cultural and educational necessity in the Border Region, the demand for paper is especially urgent. Since the establishment of the Chinhua paper-making C.I.C., it produced 2,000 sheets every day. The chief material for the paper is hemp, which constitutes about 50%, then straw which constitutes about 30%, then wood of the poplar, constituting 20%. The poplar grows around this C.I.C.; now they are experimenting to use large amounts of straw and the poplar tree in hopes of reducing the constituent of hemp. If they succeed, then the expense of the raw material will be greatly reduced. The site of the C.I.C. is located at Ansai. As the winter goes on, and everything freezes, it hinders the carrying on of the cooking and cooling processes required for paper-making, for four whole months. In order to overcome this problem, Mr. Liu Hsian-yi our chief engineer, used to come to the office to give directions on the construction of warm reservoirs for this fluid, which must be kept at an even temperature, in order to meet the problem during the winter months.

8. Sindhua Chemical C.I.C.—Has 18 members, a capital of \$2,860, with a short-term loan of \$2,500. It was originally called Soap Industrial Cooperative, being reorganized later on, and most of the members being changed; so it took its present name. Sindhua Industrial C.I.C. is the present name. Its daily products at present are 150 bars of soap, 150 packs of dentifrices, and a certain quantity of chalk (because the supply of limestone is not sufficient), and ink, which can really compete with imported goods. The C.I.C. is now studying other chemical products in the hope that in the future it can manufacture other things to meet the demands of industrial and medicinal requirements. It has brilliant prospects.

9. Kwanghua Medicinal C.I.C.:—At Pao-an. The medicinal herbs are very abundant in the Border Region, but most of this stuff has been exported to supply other regions. Recently many European and Chinese doctors and pharmacists have done research work in these medicinal herbs, manufacturing many medicines to meet the daily needs out of these herbs, such as 8th Route Army Powder, Pills for Dysentery, Powders for Stomachache, Pills for Infants, Powders to Reduce Fever, Pills for Brain Tonic, Pills for Acute Stomachache, Pills to Regulate Women's Menses, Pills to Relieve Coughs, and so on—all together about sixteen kinds. All these medicines have proven to be very effective. Really this work is very valuable. The authorities this spring wanted to set up a pharmacy factory, but after negotiations, we organized this C.I.C., based on the original plan. The products are well accepted by the people.

10. Flour Mill C.I.C. at Yen-an:—It has 15 members, a capital of \$300 and long-term loans of \$200. It manufactures flour, and noodles out of green beans. It has a good market.

RECAPITULATION OF CONDITIONS IN THE COOPERATIVES

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County	Name of Coop	Chief Product	No. of Members	Shares	Capital	Loans
1. Yenan	Lamp C.I.C.	Lamps	7	100	\$1,000	Short-term \$1,500
2. Yenchang	Weaving C.I.C.	Woven materials	20	380	3,800	Long-term 2,000
3. Kuling	Weaving C.I.C.	Woven materials	35	200	2,000	Long-term 500
4. Ansai	Weaving C.I.C.	Woven materials	19	429	2,145	Short-term 500
5. Ansai	Unity Weaving C.I.C.	Woolen materials	20	220	2,200	Long-term 500
6. Yenan	Lishenghsiang Weaving and Dyeing C.I.C.	Woolen materials & dyeing	9	600	1,600	Long-term 1,500
7. Yenan	Shoe-making C.I.C.	Shoes	37	120		Short-term 1,000
8. Yenan	Bedding-making C.I.C.	Bedding	35	218	218	Long-term 650
9. Ansai	Chinhua Paper-making C.I.C.	Paper	25	500	2,500	Short-term 550
10. Yenan	Sinhua Chemical C.I.C.	Chemicals	18	300	2,860	Long-term 130
11. Pao-an	Kwanghua Medicinal C.I.C.	Medicines	15	280	300	Short-term 200
12. Yenan	Flour Mill C.I.C.	Flour	30	150	750	Long-term 300
13. Yenan	Oil Press C.I.C.	Oil	18	100	1,000	Long-term 500
14. Yenan	Pottery & Porcelain C.I.C.	Pottery & Porcelain				
15. Yenan	Carpentry C.I.C.	Furniture (stopped functioning)				
16. Yenan	Transport C.I.C.	Transportation	9	100	1,000	Short-term 3,000
Totals (except carpentry)			296		\$42,355	

11. Oil Press C.I.C. at Yen-an:—It has 30 members, with a capital of \$750 and a long-term loan of \$300. It presses oil out of the castor bean. Now it has received a large quantity of supplies of raw material and has signed a contract with the Sinhua Chemical C.I.C. to supply the latter with 6,000 cattles of castor oil.

12. Porcelain and Pottery C.I.C. at Yen-an:—It has 18 members, a capital of \$1,000 with a long term loan of \$500. The chief products are mostly pottery, and a little porcelain. It is hoped to be developed and enlarged in the future and to produce fine porcelains.

13. Transportation C.I.C.:—It has 9 members, a capital of \$1,000, with a short term loan of \$3,000. It has also secured a loan from the Bank of the Border Region. Transportation has occupied a very important position in economics; when Mr. Rewi Alley came here a short while ago he paid great attention to this problem. Now, with the help of the Border Region Government, transportation has made great progress, but in comparison with the practical demands it still needs to be enlarged. It is planned to enlarge the whole organization, based on the original foundation.

(C) Distribution of the sites of the cooperatives. The distribution of the C.I.C. sites can be classified into three major districts under present conditions.

1. Yen-an city—This is a very important district, as it is the center of both commerce and communications. It holds favourable conditions for the supply of raw material and marketing of products.

2. Pao-an district—As the communication between Yen-an and Pao-an is comparatively very convenient, it has favourable conditions as the center of the C.I.C. Besides, it is much safer from air bombardment, independent of the military influence of the war of resistance, although the supplies of raw materials, medicinal herbs, paper stuff and fuel are several times lower than in Yen-an.

3. Ansai district—Ansai is densely populated and rich in agricultural products; besides, it is safely placed from bombardment. Several C.I.C. offices have been set up at Yenchang and other places. This is because it is easy to get raw materials here. In the future, in order to develop the C.I.C. work, the C.I.C. will be organized in various counties in the Border Region, in addition to the above-mentioned three districts.

III. A. THE C.I.C.'s WHICH ARE TO BE ENLARGED

1. Sinhua Chemical C.I.C.

A comparative table of the present products and prospective enlarged products:

<i>Product</i>	<i>Present Rate of Production</i>	<i>Intended Enlarged Production</i>
Soap	150 bars (daily)	300 bars (daily)
Dentifrices	150 packages (daily)	150 packages (daily)
Chalk	20 boxes (daily)	40 boxes (daily)
Ink	30 bottles (daily)	30 bottles (daily)

2. Chinhua Paper Making C.I.C.

Present rate of production: 2,000 sheets daily, fourfolds; Enlarged production: 10,000 sheets daily, fourfolds.

3. Transport C.I.C.

Present capacity of transport	{ Wagons: 9, with	18 mules
	{ Transport mules:	16
	{ Transport oxen:	49
Enlarged capacity of transport	{ Wagons:	15
	{ Transport mules	50
	{ Transport oxen	100

B. PROSPECTIVE C.I.C.'s TO BE ORGANIZED

1. Salt refining C.I.C.
2. Saltpetre manufacturing C.I.C.

C. BUDGET FOR LOANS FOR THE CURRENT YEAR

Table of Prospective Distribution of Loans:

<i>Name of C.I.C.</i>	<i>Prospective Sum of Loan</i>	<i>Purpose of Investment of Loan</i>
Sinhua Chemical ..	\$ 7,500	To buy machines, tools, raw material and build premises for a factory.
Chinhua Paper Mill ..	21,000	To build hydraulic machine, to buy machines and reserves of raw material.
Transport C.I.C. ..	17,000	To buy transport mules and oxen.
Kwanghua Medicinal ..	10,000	To buy machines, tools and raw material.
Salt Refining	20,000	To build salt fields, to buy receptacles for salt-refining, to repair old salt fields and build premises.
Saltpetre Manufacturing	20,000	To build saltpetre field and premises, and to buy machinery.

TOTALS .. 95,500

IV. AUXILIARY WORKS AND ENTERPRISES

During this half year, on the one hand, the Yen-an C.I.C. headquarters developed fundamental enterprises—the C.I.C. On the other hand, to help in the development of the C.I.C. work, it has engaged itself in the following auxiliary work and enterprises:

A. *The Training of Accountants.*

In the course of the development of C.I.C. work, we have felt keenly the lack of accountants. People here traditionally used the old-fashioned accounting system, which is not suitable for the aims of C.I.C. headquarters. In order to save expenses, the headquarters commissioned the Bank of the Border Region to train a batch of accountants. They have now graduated and have been appointed to work. This has met the urgent need of the present. But as the C.I.C. works have to go on developing the limited number of accountants can still not meet the demands. So the headquarters has planned to open a training class, to train about thirty accountants each time, teaching them the specific accounting methods required for the C.I.C. Again, for the sake of economizing, the headquarters employed only two teachers. The rest of the teachers will be the workers of the C.I.C. This plan has been sent to the C.I.C. headquarters for the Northwest. It will be carried out as soon as it is ratified.

B. Organizing a C.I.C. exhibition, and participating in the second agricultural exhibition of the Shensi-Kansu-Ninghsia Border Region.

An industrial exhibition has great significance and influence in the education of the people. The headquarters has been for a long time planning for an exhibition. Now as the construction department of the Border Government announced that the second agricultural and industrial exhibition of the Border Region would be held in December of the current year, the headquarters wrote on October 1 to the headquarters for the Northwest for the ratification of organizing an exhibition, in order to participate. It is already planned that the exhibition will be kept open indefinitely. The contents will be increased and enriched little by little, so that people in the Border Region can have a technical and statistical reference here. This will be a great help to the technical and manufacturing progress of the prospective new C.I.C. So before the actual ratification by headquarters for the Northwest, preparatory work has been done. But the materials for the exhibition have been collected only from the various C.I.C.'s in the Border Region. It still seems clumsy and insufficient. So the headquarters has sent petitions to other C.I.C. offices in other places, asking them to send in examples for widespread propaganda and reference.

C. Organizing United Supply and Selling Department

For the sake of helping and regulating the business development of various C.I.C.'s, and for the sake of selling the products and supplying raw material, the headquarters will organize a supply and selling department, based on the plan worked out by many other C.I.C. district headquarters. But at present, the organization which is in charge of the supply and selling business is the Tung Hui Section with two clerks. They cannot take up other miscellaneous work. So the headquarters asked the Kwanghua store at Yen-an to cooperate with this enterprise. The manager of the store promised to supply an office

and workers, and our headquarters assigned someone to be in charge of the whole function. The office has begun functioning already and signed contracts with various C.I.C.'s to buy raw material and sell the products on their behalf. All C.I.C.'s felt that the existence of this department facilitates their work a good deal.

V. WORKS HEREAFTER, THEIR MISSION AND CATEGORIES

Ever since the beginning, our headquarters has been in existence for half a year, and has made proper development, absorbing a lot of refugees to participate in production and thereby indirectly help to increase the strength of the war of resistance in the field of economics. Of course, all the work that has been done is not enough, and there are many defects as far as technique is concerned. But the little results we could have achieved is firstly due to the help and guidance of the general C. I. C. headquarters, and the C. I. C. headquarters for the Northwest, and Mr. Rewi Alley. Besides, credit has to be given to the Shensi-Kansu-Ninghsia Border Government, and the leading people of the Border Region for their help and guidance. Lastly, the endeavor, patience and hard work of all the members of our organization has to be counted in. Examining the past experience and teaching, and based on the practical demands of more production in the Border Region, we felt it necessary to enlarge the C. I. C. work and the C.I.C. industry. For the sake of strengthening the economic force of the war of resistance in preparation for a general offensive and for the sake of building up a foundation for a new country, we want to march forward according to the following plan:

(a) *Reorganizing the productive C.I.C. in the Border Region and developing the cotton and wool weaving enterprises on a large scale in order to supply the necessary beddings to the army and the people.*

The cotton-producing region in the Border Region consists of Yenchang, Yenchuan, Kuling, and Kwanchun counties. The quantity of annual production is about 1,000,000 catties. If this raw material can be utilized to manufacture clothes, the production would partially solve the problem of the urgent demands. The wool produced annually is about five million catties. Originally the local people used part of this raw material to weave woollen stuffs by hand, and the rest was exported. But now as our seaports mostly occupied by the enemy and especially those on the North China coast are tightly held by the Japanese, if we permit the wool to be freely exported, it will help the enemy and harm the war of resistance. Since the outbreak of the war, the Border Region has keenly felt the scarcity of clothes for the army and the people. Now the price of cotton has been about 30% higher than that of the wool. The woollen stuff is even much cheaper than cotton materials. In order to destroy the enemy's scheme to support its war with Chinese resources, for the

sake of utilizing the local products, regulating the rural economy, and developing the herding industry, we must by all means develop the wool weaving industry. The constructive department of the Border Government has organized 137 productive cooperatives which are mostly weaving cooperatives. If they can be properly run and have enough loans for economic improvement and certain technical improvements, they can produce more stuff even by the old methods. If modern machines are applied in these organizations the results will be much better.

(b) Manufacturing of military necessities, medicines, stationery, and other daily necessities, and agricultural implements, in order to boycott enemy goods, as well as to frustrate the enemy's economic blockade.

The government of the Border Region has prohibited the selling and transport of enemy goods for a long time. Our industry and hand industry have been very backward. Since the outbreak of the present war, the demand for various articles has been increasingly urgent. The enemy tried their best to sell their goods in the occupied areas, in order to absorb our money. Under bribery and threats, unscrupulous merchants have been smuggling and selling the enemy goods, while the articles for military use and for cultural development are strictly prohibited from being transported in by the enemy. To prohibit the circulation of enemy goods, government decrees are insufficient. Even if these are effective, we still cannot solve the urgent problem of the practical demands by the people as well as the army. The C.I.C. organization under the direction of Yen-an headquarters, has manufactured various articles but they are far from being adequate to meet the practical demands. We need more cooperatives and to manufacture more articles for military use, such as uniforms, shoes, water and thermos bottles, laced belts, even the insignia for caps and buttons; and articles for cultural development, such as paper, ink, mimeographing ink, pens, chalk, slates and slate chalk for school children; medicines such as soda, camphor, alcohol as manufactured by the Chemical C.I.C.; medicinal herbs such as 8th Route Army powder, and so on, as manufactured by the Kwanghua Medicinal C.I.C.; daily necessities such as chemical soap, dentifrices, lamps, pottery and porcelain; agricultural implements, such as plows, hoes, sickles, and spades; Carpentry implements, masonry implements, and so on.

(c) Opening mines and exploitation of natural resources, in order to strengthen the national reconstruction work and lay the foundation for industrial reconstruction.

Heavy industry is the foundation of all industry. Without heavy industry it is impossible to develop communication, industry and agriculture, and it is impossible to fortify the national defense. At present to strengthen the material strength of the war of resistance we have to rely mostly on handicraft industry. We cannot yet build up-to-date, progressive machinery industry in the interior. The

chief reason for this is due to the lack of heavy industry, the lack of steel and other materials, and even the lack of coal and manufactured chemical raw material. Therefore without heavy industry we cannot build up the machine industry in the interior. Nowadays even very old-fashioned, shabby machines are treasured greatly, scrap iron and copper become invaluable things. This is because we are short of them all. So if the problem of heavy industry cannot be solved, we cannot solve the problem of industrialization as a whole. To solve this problem on a small scale, the development of industrialization will also be very small. To solve the problem on a large scale, the development of industrialization can be carried on on a big scale. If we don't try to overcome the difficulties and the problems in this respect, even the backward handicraft industry cannot be pushed forward. This is a fact. Anyone who engages in industry, large or small, has keenly felt this difficulty. In the Border Region we have discovered iron, coal, petroleum and sulphur mines, and their quality has been examined, showing it is worthwhile. But we cannot open them nowadays on a large scale; but we can do it with both old and new methods on a small scale, and good results may be expected to be achieved. If so, then these small industries can be the foundation of the small industry within and outside the Border Region. And, speaking of the chemical industry, there are here salt, saltpetre, nitre and sulphur, which can be said to be the essential elements of the chemical industry. Of course, it is not very easy to develop this industry with handicraft methods. But at present, speaking of the demands of the war in China, some industries of this category have been imperative, although the cost may be very expensive, and only if this demand can be fulfilled can we really increase the material strength of the war of resistance, can we build up a modernized national defense reconstruction, and the foundation of the future industrialization.

(d) The utilization of products of livestock to aid the development of herding and agriculture.

The products of livestock are chiefly wool, hides, bones and horns. We have dealt with the production of wool in the preceding chapters. The Border Region produces several million sheep. In addition to a large amount of wool there are large amounts of hides which can be tanned into leather, besides the ox-hides which are also produced on a great scale, the leather of which can be used for many, many purposes. This industry should be greatly enlarged so that it can coordinate the development of the herding industry. As to the bones and horns that used to be abundant, hereafter the bones should be utilized to manufacture soap and sulphur; horns, too, can be used to manufacture many tools. If the by-products of the herding industry can be utilized and sold, the herding industry will be pushed on one step further. By the way, the bones can also be utilized to manufacture fertilizer, which greatly helps the agricultural industry.

(e) *Developing transport cooperatives in order to facilitate and regulate industrial and agricultural economy.*

In order to develop industry, it is necessary to have convenient communications to transport the products to other places, and the raw materials to the industrial centres. Without this, industry will remain at a standstill and will not go on functioning. So the development of transport is indispensable to the development of industry, also to the agricultural industry. So it is an imperative necessity to encourage transport cooperatives.

(f) *Organizing, supplying and selling stations, in order to meet the demands of supplying and selling systematically.*

For each C.I.C. to sell and to secure supplies by itself is not only difficult but also uneconomical. Much effort would be spent and little result achieved. As communication is still inconvenient, the people scattered and production not centralized, the selling and securing of supplies also cannot be centralized. Sometimes to buy the raw material people have to go as far as several hundred li. The same happens in the selling of the products. So it is imperatively necessary to have united supplying and selling stations at various places in order to form a network, so that the manufacturers can devote their entire energy to production, and the traders can devote their entire energy to selling. This division of labour can both save money and man-power. To carry out this scheme further systematically, will tend to promote the smooth operation of the industry. Now the organization of supplying and selling stations has been started, but owing to the shortage of capital the headquarters has commissioned the Kwanghua store at Yen-an to carry out this plan. It is further planned to commission C.I.C. offices in various places to cooperate with this plan, and this is really the important work to be undertaken by C.I.C. headquarters at Yen-an.

(g) *To organize the peasants into the C.I.C. in order to utilize their leisure time for the increase of accessory agricultural products.*

Industrial cooperatives are mostly based on small-scale handicraft industry and the centralization of small industry so that it should go on producing all year round, while the agricultural industry is different. At harvest time the peasants must spend all their time on this, but when the work in the field is over the peasants are at leisure. To organize the peasants into regular C.I.C.'s would be very difficult, and even impossible. By giving them certain handicraft work to do in their leisure time, they will be only too glad to participate. Work such as weaving, spinning, collecting medicinal herbs, opening mines, pressing oil, grinding flour, are the most suitable work for them. They can work either at home or outside, so they can be organized in this respect. But there will still be difficulties so far as management is concerned. To overcome these difficulties, we must rely on progressive, democratic politics in the Border Region and the strong unity

of the peasant's organization. The productive cooperatives of the Constructive Department of the Government of the Border Region have adopted this method to organize the peasants into the weaving industry. Based upon this miniature work, they can be further enlarged and strengthened so that both agricultural industry and handicraft industry can cooperate and go on together.

Lastly, according to the experience achieved during the past year and in the cooperative movement in the past, and as the Border Region has rich natural resources and progressive, diplomatic politics and progressive people's organizations, the work of the industrial cooperatives in the Border Region has a great future indeed. The handicap, however, is the shortage of capital and technical personnel. But we believe with the help and under the guidance of the C.I.C. headquarters for the Northwest, we can overcome these difficulties. We struggle for the accomplishment of this glorious task, for the final victory of the war of resistance and laying the foundation for a new country, and for the welfare of the people in the Border Region as well as in the whole country.

1939, October 15.

PLAN AND BUDGET FOR THE REORGANIZATION OF THE PRO-
DUCTIVE COOPERATIVES OF THE CONSTRUCTIVE DEPART-
MENT OF THE BORDER REGION INTO THE C.I.C.

In the region under the control of the Border Government of Shensi-Kansu-Ninghsia, there are 137 productive cooperatives organized by the constructive Department of the Government, in addition to the 15 C.I.C.'s. The number of members of the government cooperatives reached 28,000, with a capital of more than \$30,000, with distribution among 14 counties. More than 70 cooperatives have achieved good results. The rest of 60 cooperatives have also been well organized and go on working. Now with the consent of the Construction Department of the Border Region and that of the cooperative authorities themselves, these 137 cooperatives are to be incorporated into the C.I.C. units. They have to be reorganized, enlarged and improved technically. But these cooperatives are in various parts of the region, and it takes time for the inspectors sent out by the Yen-an office to reach there. Generally the journey takes ten days and the shortest trip is three or five days. So it is very inconvenient for the Yen-an office to be responsible for the guidance; it is necessary to organize branch offices in order to facilitate the connections between the various cooperatives. These branch offices can not only reorganize the hundreds of industrial cooperatives, but also can examine the conditions in various places and mobilize and

organize the local workers and peasants into new C.I.C.'s. Now according to the geographical necessities, five branch offices in addition to the Yen-an office, are to be established at Yenchang, Kwen-chung, Tingbien, Shenfu and Chutzu. The distribution is shown in the following table:

<i>Office</i>	<i>Location</i>	<i>Counties and Towns Supervised</i>
Yenan	New Market, Yen-an	Yenan, Yen-an city, Ansai, Kanchuan, Luhsien, Anting, Pao-an
Yenchang Branch	Yenchang	Yenchang, Yenchuan, Kuling
Kwanchung „	With the special District Commissioner's office at Kwanchung	Shenyao, Chihsui, Ninh sien, Sinchen
Tingbien „	Tingbien	Tingbien, Yenchih, Chinbien
Shengfu „	Shengfu	Shenmu, Fuku
Chutzu „	Chutzu	Chutzu, Huachih, Fanhsien, Chinyang

The Distribution of the Original Government Cooperatives and the C.I.C.

<i>Office</i>	<i>County</i>	<i>No. of C.I.Cs.</i>	<i>No. of Govt. Co-ops</i>	<i>Products of Government Co-ops</i>	<i>Remarks</i>
Yenan	Yenan	6	7	1 for pottery and porcelain 1 for wool weaving 5 for weaving and spinning	Yenan office supplies 34 Cooperatives
„	Yenan City	4			
„	Ansai	3	10	1 for weaving 9 for spinning	
„	Anting		4	All for spinning	
„	Pao-on				
„	Kanchuan				
„	Luhsien				
Yeng-chang Branch	Yenchang	1	28	1 for weaving 27 for spinning	There are 100 cooperatives under supervision of Yenchang office
„	Yenchuan		50	All for spinning	
„	Kuling	1	20	1 for weaving 19 for spinning	

<i>Office</i>	<i>County</i>	<i>No. of C.I.Cs.</i>	<i>No. of Govt. Co-ops</i>	<i>Products of Government Co-ops</i>	<i>Remarks</i>
Kwan-chung Branch	Shengyao		1	For oil pressing	There are four cooperatives under control of Kwanchung Branch office
"	Ningsien		2	For oil pressing	
"	Chinsui		1	For weaving	
"	Sinchin				
Tingbien Branch	Tingbien		1	Salt mining	The Tingbien office has 3 cooperatives
"	Yenchih		2	Salt mining	
"	Chingbien				
Shengfu Branch	Shengfu				
Chutzu Branch	Chutzu		5	2 oil pressing 1 flour grinding 1 making charcoal 1 making beancurd	The Chutzu Branch office has 11 co-operatives
"	Fanh sien		5	4 oil pressing 1 transport	
"	Huachih		1	For weaving	
"	Chinyang				
TOTAL		15	137		

As to the system of the organization, the office in Yen an still sticks to its old title: "Yenan Office of the Headquarters for the Northwest of the Chinese Industrial Cooperatives," and Yenchang-Kwan-chung-Tingbien-Shenfu-Chutzu are all called "Branch Offices." The Yen an office belongs directly to the C. I. C. headquarters for the Northwest, and the branch offices belong directly to the Yen an office. All the contact between the headquarters for the Northwest and the Branch offices are transmitted by the Yen an office. The personnel for each branch office is as follows:

Yenchang branch office: 1 for the head, 2 cooperatives directors, 2 technical directors, 1 accountant, 1 for general business 1 for office service, 1 cook.

Kwangchung branch office: 1 as head, 1 cooperative director, 1 technical director, 1 accountant and general business, 1 for office service, 1 cook.

Tingbien branch office: 1 as head, 1 cooperative director, 1 technical director, 1 accountant and general business, 1 for office service,

1 cook.

Shengfu branch office: 1 as head, 1 cooperative director, 1 technical director, 1 accountant and general business, 1 for office service, 1 cook.

Chutzu branch office: 1 as head, 1 cooperative director, 1 technical director, 1 accountant and general business, 1 for office service, and 1 cook.

BUDGET FOR INITIAL EXPENSES FOR BRANCH OFFICES

Branch Office	Building	Furniture	Stationery	Miscellaneous	Total	Remarks
Yenchang	\$ 500	\$ 120	\$ 60	\$ 400	\$1,080	Each branch office has one horse
Kwang-chung ..	400	80	40	250	770	
Tingbien	400	80	40	250	770	
Shengfu	400	80	40	250	770	
Chutzu ..	400	80	40	250	770	
TOTAL ..	2,100	440	220	1,400	4,160	

BUDGET FOR REGULAR EXPENSES IN THE BRANCH OFFICES

Item	Yenchang	Kwang-chung	Ting-bien	Shengfu	Chutzu
Salary	\$277	\$162	\$162	\$162	\$162
Office Expenses	123	108	108	108	108
Purchases ..	100	80	80	80	80
Special Expenses	100	50	50	50	50
TOTAL ..	600	400	400	400	400

According to the above budget, the monthly regular expense is Chinese dollars 2,200.

As soon as the above-mentioned five branch offices are organized, they have to start the work of organizing the 137 productive cooperatives into the C.I.C. Beside this they have to organize new C.I.C.'s, based on the special products of the locality. The productive cooperatives have altogether a capital from shares of \$30,000. To apply this capital for equipment and purchasing of raw materials, it is very hard for them to develop and produce easily, so each branch office has to help the various C.I.C.'s by giving them loans for capital under various circumstances. Then it is possible to have a steady progress and development for the C.I.C. Therefore, to reorganize the government productive cooperatives and establish new C.I.C.'s sufficient capital for loans is necessary. As to the organization of branch offices and the collecting of fundamental capital for loans, help and guidance from the headquarters for the Northwest is eagerly awaited.

APPENDIX 8

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